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<210> 5832
 <211> 322
 <212> PRT
 <213> Homo sapiens

<400> 5832
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 His Lys Glu Phe Gln Gln Asn Asn Trp His Ala Val Gly Cys Gly Phe
 35 40 45
 Arg Arg Ala Arg Pro Lys Phe Glu Gln Val Asn Leu Leu Asp Ser Asn
 50 55 60
 Ala Val His His Ile Ile His Asp Phe Gln Pro His Val Ile Val His
 65 70 75 80
 Cys Ala Ala Glu Arg Arg Pro Asp Val Val Glu Asn Gln Pro Asp Ala
 85 90 95
 Ala Ser Gln Leu Asn Val Asp Ala Ser Gly Asn Leu Ala Lys Glu Ala
 100 105 110
 Ala Ala Val Gly Ala Phe Leu Ile Tyr Ile Ser Ser Asp Tyr Val Phe
 115 120 125
 Asp Gly Thr Asn Pro Pro Tyr Arg Glu Glu Asp Ile Pro Ala Pro Leu
 130 135 140
 Asn Leu Tyr Gly Lys Thr Lys Leu Asp Gly Glu Lys Ala Val Leu Glu
 145 150 155 160
 Asn Asn Leu Gly Ala Ala Val Leu Arg Ile Pro Ile Leu Tyr Gly Glu
 165 170 175
 Val Glu Lys Leu Glu Glu Ser Ala Val Thr Val Met Phe Asp Lys Val
 180 185 190
 Gln Phe Ser Asn Lys Ser Ala Asn Met Asp His Trp Gln Gln Arg Phe
 195 200 205
 Pro Thr His Val Lys Asp Val Ala Thr Val Cys Arg Gln Leu Ala Glu
 210 215 220
 Lys Arg Met Leu Asp Pro Ser Ile Lys Gly Thr Phe His Trp Ser Gly
 225 230 235 240
 Asn Glu Gln Met Thr Lys Tyr Glu Met Ala Cys Ala Ile Ala Asp Ala
 245 250 255
 Phe Asn Leu Pro Ser Ser His Leu Arg Pro Ile Thr Asp Ser Pro Val
 260 265 270
 Leu Gly Ala Gln Arg Pro Arg Asn Ala Gln Leu Asp Cys Ser Lys Leu
 275 280 285
 Glu Thr Leu Gly Ile Gly Gln Arg Thr Pro Phe Arg Ile Gly Ile Lys
 290 295 300
 Glu Ser Leu Trp Pro Phe Leu Ile Asp Lys Arg Trp Arg Gln Thr Val
 305 310 315 320
 Phe His

<210> 5833
<211> 805
<212> DNA
<213> Homo sapiens

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180
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240
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300
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360
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420
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660
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<210> 5834
<211> 268
<212> PRT
<213> Homo sapiens

<400> 5834
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20 25 30
Glu Gln Gln Val Glu Ser Met Thr Pro Lys Pro Val Leu Gln Glu Glu
35 40 45
Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val
50 55 60
Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro
65 70 75 80
Leu Glu Phe Leu Arg Arg Val Pro Leu Gly Phe Ser Ala Pro Pro Asp

85	90	95
Gly Leu Pro Gln Val Pro His Met Ala Tyr Cys Ala Leu Glu Asn Leu		
100	105	110
Tyr Leu Leu Met Gly Arg Glu Leu Glu Tyr Leu Glu Glu Val Pro Pro		
115	120	125
Gly Asn Val Leu Gly Ile Gly Gly Leu Gln Asp Phe Val Leu Lys Ser		
130	135	140
Ala Thr Leu Cys Ser Leu Pro Ser Cys Pro Pro Phe Ile Pro Leu Asn		
145	150	155
Phe Glu Ala Thr Pro Ile Val Arg Val Ala Val Glu Pro Lys His Pro		
165	170	175
Ser Glu Met Pro Gln Leu Val Lys Gly Met Lys Leu Leu Asn Gln Ala		
180	185	190
Asp Pro Cys Val Gln Ile Leu Ile Gln Glu Thr Gly Glu His Val Leu		
195	200	205
Val Thr Ala Gly Glu Val His Leu Gln Arg Cys Leu Asp Asp Leu Lys		
210	215	220
Glu Arg Phe Ala Lys Ile His Ile Ser Val Ser Glu Pro Ile Ile Pro		
225	230	235
Phe Arg Glu Thr Ile Thr Lys Pro Pro Lys Val Asp Met Val Asn Glu		
245	250	255
Glu Ile Gly Lys Gln Gln Lys Val Ala Val Ile His		
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<210> 5835

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5835

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180
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240
aaagaggatg ccatggtgga gtttgtcaag ctcttaataa ggtgttgcca tctctttca
300
acatatgttgcgtccacaa aatagagaag gaagagcaag aaaaaaaaaag gaaggaggaa
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420

<210> 5836

<211> 140

<212> PRT

<213> Homo sapiens

<400> 5836

Xaa Leu Glu Gln Arg Trp Gly Phe Gly Leu Glu Glu Leu Tyr Gly Leu
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20	25	30
Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met		
	40	45
Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val		
	55	60
Leu Gly Asn Asp Arg Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser		
	70	80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Leu Asn Arg Cys Cys		
	85	95
His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu		
	100	110
Gln Asp Lys Lys Arg Lys Glu Glu Glu Arg Arg Arg Arg Glu Glu		
	115	125
Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys		
	130	140

<210> 5837

<211> 582

<212> DNA

<213> Homo sapiens

<400> 5837
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 180
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 360
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 420
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 480
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<210> 5838

<211> 88

<212> PRT

<213> Homo sapiens

<400> 5838
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 20 25 30
 Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

35 40 45
Ala Gly Ala Ala Ser Arg Arg Ala Phe Leu Leu Gly Val Leu Ala Val
50 55 60
Gly Leu Gly Val Cys Thr Tyr Ala Ala Ala Leu Val Thr Leu Ala Ala
65 70 75 80
Tyr Leu Ala Ser Arg Asp Pro Pro
85

<210> 5839
<211> 1895
<212> DNA
<213> Homo sapiens

<400> 5839
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120
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180
aatagaaagc aaattaaaa acaccaacac ccaaacacac aagactgcac acaagaaaaa
240
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300
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360
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420
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480
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1200

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1620 tgggctggga atcaggggcc tgagggagcc cctgccactg cctgcccaga accagtgc
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<210> 5840

<211> 138

<212> PRT

<213> Homo sapiens

<400> 5840

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Leu Met Val His Gly Trp Cys Pro Val Ile Phe Ser Trp Ala Val Ala
35 40 45
Pro Arg Gly Ser Gly Phe Pro Ala Gln Gly Ile Phe Asp Pro Cys Gln
50 55 60
Arg Arg Glu Arg Glu Leu Ser Trp Phe Pro Phe His Leu Phe Ser Gly
65 70 75 80
Cys Phe Lys Ala Asn Ile Pro Val Pro Asn Val Leu Cys Gly Leu Asn
85 90 95
Pro Gly Arg Gly Gln Gly His Ile Gln Val Gly Leu Ala Ser Ser Thr
100 105 110
Thr Phe Trp Pro Gln Gln Arg Met Gly Phe His Gln Ser Leu Ser Thr
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Ser Arg Phe Pro Lys Glu Ser Pro Arg Ser
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<210> 5841

<211> 3411

<212> DNA

<213> Homo sapiens

<400> 5841
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<210> 5842
 <211> 460
 <212> PRT
 <213> Homo sapiens

<400> 5842
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 Leu Asn Phe His Pro Val Trp Thr Ser Arg Thr Cys Ser Arg Pro Pro
 50 55 60
 Phe Cys Leu Ser Gln Ile Val Gln Leu Lys Ala Ile Asn Val Asp Leu
 65 70 75 80
 Gln Ser Asp Ala Ala Leu Gln Val Asp Ile Ser Asp Ala Leu Ser Glu
 85 90 95
 Arg Asp Lys Val Lys Phe Thr Val His Thr Lys Ser Ser Leu Pro Asn
 100 105 110
 Phe Lys Gln Asn Glu Phe Ser Val Val Arg Gln His Glu Glu Phe Ile
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 Trp Leu His Asp Ser Phe Val Glu Asn Glu Asp Tyr Ala Gly Tyr Ile
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 Ile Pro Pro Ala Pro Pro Arg Pro Asp Phe Asp Ala Ser Arg Glu Lys
 145 150 155 160
 Leu Gln Lys Leu Gly Glu Gly Glu Ser Met Thr Lys Glu Glu Phe
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 Thr Lys Met Lys Gln Glu Leu Glu Ala Glu Tyr Leu Ala Ile Phe Lys
 180 185 190
 Lys Thr Val Ala Met His Glu Val Phe Leu Cys Arg Val Ala Ala His
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 Pro Ile Leu Arg Arg Asp Leu Asn Phe His Val Phe Leu Glu Tyr Asn
 210 215 220
 Gln Asp Leu Ser Val Arg Gly Lys Asn Lys Lys Glu Lys Leu Glu Asp
 225 230 235 240
 Phe Phe Lys Asn Met Val Lys Ser Ala Asp Gly Val Ile Val Ser Gly
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 Val Lys Asp Val Asp Asp Phe Phe Glu His Glu Arg Thr Phe Leu Leu
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 Glu Tyr His Asn Arg Val Lys Asp Ala Ser Ala Lys Ser Asp Arg Met
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 Thr Arg Ser His Lys Ser Ala Ala Asp Asp Tyr Asn Arg Ile Gly Ser
 290 295 300
 Ser Leu Tyr Ala Leu Gly Thr Gln Asp Ser Thr Asp Ile Cys Lys Phe

305	310	315	320
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Arg Val Ser Ala Asp Glu Asp Leu Lys Leu Ser Asp Leu Leu Lys Tyr			
340	345	350	
Tyr Leu Arg Glu Ser Gln Ala Ala Lys Asp Leu Leu Tyr Arg Arg Ser			
355	360	365	
Arg Ser Leu Val Asp Tyr Glu Asn Ala Asn Lys Ala Leu Asp Lys Ala			
370	375	380	
Arg Ala Lys Asn Lys Asp Val Leu Gln Ala Glu Thr Ser Gln Gln Leu			
385	390	395	400
Cys Cys Gln Lys Phe Glu Lys Ile Ser Glu Ser Ala Lys Gln Glu Leu			
405	410	415	
Ile Asp Phe Lys Thr Arg Arg Val Ala Ala Phe Arg Lys Asn Leu Val			
420	425	430	
Glu Leu Ala Glu Leu Glu Leu Lys His Ala Lys Gly Asn Leu Gln Leu			
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<210> 5843
<211> 6446
<212> DNA
<213> Homo sapiens

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<211> 823

<212> PRT

<213> Homo sapiens

<400> 5844
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 Leu Lys Ala Ala Met Gln Glu Ala Arg Gly Leu Gln Phe Val Trp Arg
 50 55 60
 Gly Ser Pro Ser Leu Ser Glu Arg Gln Glu Ile Phe Thr His Ile Met
 65 70 75 80
 Asp Gln Tyr Ser Tyr Cys Thr Pro Ser His Ile Pro Phe Ser Asn Arg
 85 90 95
 Ser Gly Phe Tyr Trp Asn Gly Val Ala Val Phe Pro Lys Pro Pro Pro
 100 105 110
 Asp Gly Val Tyr Pro Asn Met Ser Glu Pro Val Thr Pro Ala Asn Ile
 115 120 125
 Asn Leu Tyr Ala Glu Ala Leu Val Ala Asn Val Lys Gln Arg Ala Ala
 130 135 140
 Trp Phe Arg Thr Pro His Val Leu Trp Pro Trp Gly Cys Asp Lys Gln
 145 150 155 160
 Phe Phe Asn Ala Ser Val Gln Phe Ala Asn Met Asp Pro Leu Leu Asp

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His Ile Asn Ser His Ala Ala Glu Leu Gly Val Ser Val Gln Tyr Ala		
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Thr Leu Gly Asp Tyr Phe Arg Ala Leu His Ala Leu Asn Val Thr Trp		
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Arg Val Arg Asp His His Asp Phe Leu Pro Tyr Ser Thr Glu Pro Phe		
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Gln Ala Trp Thr Gly Phe Tyr Thr Ser Arg Ser Ser Leu Lys Gly Leu		
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Ala Arg Arg Ala Ser Ala Leu Leu Tyr Ala Gly Glu Ser Met Phe Thr		
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Arg Tyr Leu Trp Pro Ala Pro Arg Gly His Leu Asp Pro Thr Trp Ala		
260	265	270
Leu Gln Gln Leu Gln Leu Arg Trp Ala Val Ser Glu Val Gln His		
275	280	285
His Asp Ala Ile Thr Gly Thr Glu Ser Pro Lys Val Arg Asp Met Tyr		
290	295	300
Ala Thr His Leu Ala Ser Gly Met Leu Gly Val Arg Lys Leu Met Ala		
305	310	315
Ser Ile Val Leu Asp Glu Leu Gln Pro Gln Ala Pro Met Ala Ala Ser		
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Ser Asp Ala Gly Pro Ala Gly His Phe Ala Ser Val Tyr Asn Pro Leu		
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Ala Trp Thr Val Thr Thr Ile Val Thr Leu Thr Val Gly Phe Pro Gly		
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Val Arg Val Thr Asp Glu Ala Gly His Pro Val Pro Ser Gln Ile Gln		
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Ile Pro Gly Leu Ser Tyr Arg His Tyr Ser Ile Arg Pro Thr Ala Gly		
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Gln Gly Pro Ile Ser Asp Asn Tyr Leu Phe Thr Pro Gly Lys Ala Ala		
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Val Pro Ala Trp Glu Ala Val Glu Met Glu Ile Val Ala Gly Gln Leu		
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Val Thr Glu Ile Arg Gln Tyr Phe Tyr Arg Asn Met Thr Ala Gln Asn		
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Asp Gly Glu Leu Leu Cys His Arg Ile Glu Gln Glu Tyr Gln Ala Gly		
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Pro Leu Glu Leu Asn Arg Glu Ala Val Leu Arg Thr Ser Thr Asn Leu		
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Tyr Pro Met Val Gln Ser Ala Phe Met Glu Asp Gly Lys Ser Arg Leu		
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Gln Val Glu Val Met Leu His Arg Arg Leu Trp Asn Asn Phe Asp Trp		
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Asp Leu Gly Tyr Asn Leu Thr Leu Asn Asp Thr Ser Val Val His Pro		
675	680	685
Val Leu Trp Leu Leu Leu Gly Ser Trp Ser Leu Thr Thr Ala Leu Arg		
690	695	700
Gln Arg Ser Ala Leu Ala Leu Gln His Arg Pro Val Val Leu Phe Gly		
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Asp Leu Ala Gly Thr Ala Pro Lys Leu Pro Gly Pro Gln Gln Glu		720
725	730	735
Ala Val Thr Leu Pro Pro Asn Leu His Leu Gln Ile Leu Ser Ile Pro		
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Gly Trp Arg Tyr Ser Ser Asn His Thr Glu His Ser Gln Asn Leu Arg		
755	760	765
Lys Gly His Arg Gly Glu Ala Gln Ala Asp Leu Arg Arg Val Leu Leu		
770	775	780
Arg Leu Tyr His Leu Tyr Glu Val Gly Glu Asp Pro Val Leu Ser Gln		
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<211> 2762
<212> DNA
<213> Homo sapiens

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 <212> PRT
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 Glu Leu Ser Lys Thr Arg Ser Leu Gln Gln Gly Pro Asp Gly Leu Arg
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 Lys Gln His Gln Ser Asp Val Glu Ala Leu Lys Arg Glu Leu Gln Val
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 Arg Gln Ala Glu Glu Arg Glu His Thr Leu Arg Arg Cys Gln Gln Glu
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 Glu Glu Ile Asp Gln Leu Arg Gly Phe Ile Ala Ser Gln Gly Met Gly
 145 150 155 160
 Asn Gly Cys Gly Arg Ser Asn Glu Arg Ser Ser Cys Glu Leu Glu Val
 165 170 175
 Leu Leu Arg Val Lys Glu Asn Glu Leu Gln Tyr Leu Lys Lys Glu Val
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 Gln Cys Leu Arg Asp Glu Leu Gln Met Met Gln Lys Asp Lys Arg Phe
 195 200 205
 Thr Ser Gly Lys Tyr Gln Asp Val Tyr Val Glu Leu Ser His Ile Lys

210 215 220
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<213> Homo sapiens

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 Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala
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 Pro Arg His Lys Gln Arg Gln Met
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<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

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<210> 5850

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5850
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 20 25 30
 Cys Thr Gln Thr Gly His Ala Gln Pro Cys Pro Ser Ala Pro Ser Thr
 35 40 45
 Gly Pro Ile His Ile Ala Glu Gly Gly Arg Gly Arg Pro Pro Pro Gly
 50 55 60
 Ser Ala Ser Asn Pro Gln Pro Pro Gly Ser Pro His Cys Pro Ser Ala
 65 70 75 80
 Gly Leu Ser Pro Val Pro Gly Val Gly Gly Arg Gln Cys Pro Gly Thr
 85 90 95
 Val Pro Arg Val Arg Arg Pro Gly Leu Ala Gly His Pro Val Thr His
 100 105 110
 Arg Ile Asn Arg Lys Thr Ala Ser Pro Pro Asn Leu Cys Pro Arg His
 115 120 125
 Asn Met Ser Arg Ser Glu Ser Cys Thr Pro Arg Ser Arg Ala Pro Leu
 130 135 140
 Gln Arg Thr Leu Thr Pro Pro Arg Gly Ala
 145 150

<210> 5851

<211> 488

<212> DNA
<213> Homo sapiens

<400> 5851
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120
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180
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240
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360
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tgacgcgt
488

<210> 5852
<211> 82
<212> PRT
<213> Homo sapiens

<400> 5852
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Asn Lys Thr Ser Glu Asp Val Thr Met Ala Ala Ala Ser Pro Val Thr
20 25 30
Leu Thr Lys Gly Thr Ser Ala Ala His Leu Asn Ser Met Glu Val Thr
35 40 45
Thr Glu Asp Thr Ser Arg Thr Asp Ala Tyr Glu Ser Tyr Lys Lys Lys
50 55 60
Asp Tyr Thr Gln Val Asp Tyr Leu Ile Asn Gly Met Tyr Ala Asp Ser
65 70 75 80
Glu Met

<210> 5853
<211> 487
<212> DNA
<213> Homo sapiens

<400> 5853
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120
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180

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300
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420
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ctttccg
487

<210> 5854
<211> 68
<212> PRT
<213> Homo sapiens

<400> 5854
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Tyr Arg Arg Ser Gln Glu Gly Gly Pro Ala Arg Pro Ala Ala Pro Asp
20 25 30
Thr Pro Ser Gly Arg Ser Gly Pro Ala Ala Pro Trp Arg Thr Pro Ala
35 40 45
Arg Thr Pro Pro Arg Leu Leu Pro Thr Leu Cys Pro Val Thr Pro Val
50 55 60
Ser Trp Pro Leu
65

<210> 5855
<211> 362
<212> DNA
<213> Homo sapiens

<400> 5855
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gagggactcc gtaacagccc ctctgtgctc agcgatccc cttcttagcag tccctccctc
120
tcctcccgac cctcccgac gacacctgctg gggctgtgg ggcccaaagc gggaggagg
180
taacgagggtt gttcagaag tcctcctggc ggcacacgaa ggtgttaggag atcaggaga
240
ggccggggcc catccgggtgc tcagtgacgc ggggctcctg gtccttggcc tccgtgcagc
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360
an
362

<210> 5856
<211> 113
<212> PRT

<213> Homo sapiens

<400> 5856

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										20					25
Ser	Pro	Pro	Asp	Pro	Pro	Ala	Gly	Thr	Cys	Trp	Gly	Leu	Trp	Gly	Pro
										35					40
Lys	Arg	Glu	Gly	Val	Asn	Glu	Val	Val	Ala	Glu	Val	Leu	Leu	Ala	Ala
										50					55
His	Glu	Gly	Val	Gly	Asp	Gln	Gly	Glu	Ala	Gly	Ala	His	Pro	Val	Leu
										65					70
Ser	Asp	Ala	Gly	Leu	Leu	Val	Leu	Gly	Leu	Arg	Ala	Ala	Leu	Gly	Glu
										85					90
His	Gln	Ala	His	Leu	Gly	Ser	Ala	Leu	Asn	Glu	His	Gln	Arg	Val	Leu
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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120					
cgggggcgac	cgtccccgggg	ccggccgccc	aagctgcagc	gcaactctcg	cggcggccag
180					
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240					
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300					
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360					
gaaattgaga	atgtggccaa	acaatttggt	gcacaagttc	atcgaagaag	ttctgaagtt
420					
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480					
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540					
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600					
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660					
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720					
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780					
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840					

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 960
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 1751

<210> 5858
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 5858
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 20 25 30
 Gly Gly Gln Gly Arg Gly Gly Glu Lys Pro Pro His Leu Ala Ala Leu
 35 40 45
 Ile Leu Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys
 50 55 60
 His Leu Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu
 65 70 75 80
 Asp Ser Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu
 85 90 95
 Ile Glu Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser
 100 105 110
 Ser Glu Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu

115	120	125
Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala		
130	135	140
Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met		
145	150	155
Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His		
165	170	175
Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu		
180	185	190
Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp		
195	200	205
Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu		
210	215	220
Ile Glu Met Gly Tyr Leu Gln Gly Lys Met Ala Tyr Tyr Glu Met		
225	230	235
Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile		
245	250	255
Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu		
260	265	270
Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn		
275	280	285
Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp		
290	295	300
Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu		
305	310	315
Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser		
325	330	335
Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala		
340	345	350
Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val		
355	360	365
Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val		
370	375	380
Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala		
385	390	395
Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu		
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Phe Ala Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys		
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Gln Lys		

<210> 5859
<211> 2267
<212> DNA
<213> Homo sapiens

<400> 5859
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aaatcacaac ctcctcttg attcccttgc acgctaagcc tctttcaaat tcttttcct
180

gagctggaaag accagtcaaga tgcccgagg gtcagcgcca agcacattcc caaccggca
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300 gatTTAACCC attaggaagc ccatgtttca atctaagcca gaaggagctg cgggacaagg
360 cagtctcac tttgaaggc ccttcctgc tccagtcct gggctagggt tctagaagag
420 gctggctgcc acgtttacat gaggccaccc aagatctaag tccagctaag cccagggagg
480 ctctcgaaa ggctgggacc tcgggtgctg cgctctcaac cctctcggtg accacggctc
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 2160
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 2267

<210> 5860
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 5860
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 20 25 30
 Ser Arg Ala Ser Glu Ala Ser Gly Ser Leu Leu Leu Arg Phe Phe Leu
 35 40 45
 Gln Met Gly Leu Gly Arg Cys Arg Phe Cys Phe Ser Pro Trp Leu Pro
 50 55 60
 Val Arg Pro Gln Pro Ser Gly Cys Asp Ile Ile Glu Ser Ala Val Ser
 65 70 75 80
 Pro Leu Val Gly Asp Trp Gly Ser Val Phe Ser His Leu Tyr Leu Leu
 85 90 95

<210> 5861
 <211> 1951
 <212> DNA
 <213> Homo sapiens

<400> 5861
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 360

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420
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1260
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1320
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1380
aggctccgaa atattacta cctctttaat actgcctct tccttatacgc ctggcgccctt
1440
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1560
gccttttatac tggaaacctctt cagataccctc taaaacagca aactgtgattt ctcaagatattt
1620
gaaagtaaca aggaatatgc cccaaactgtc aaatgtcacc tggatgttat tggcccttat
1680
tccttaacta tggatgttta tttcagttagt agaagggaaag ttgtaaacta gcccatagtc
1740
acctatattt tagggaaaaa aatccaaattt gtttccttaac attctatattt atgccttgc
1800
gtattaaacg tgaaagtact cccacttttc tatatttagt ttttccttgc tctctgagat
1860
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1920
cagtactaac cttggaaacca ttctgggtac c
1951

<210> 5862
<211> 514
<212> PRT
<213> Homo sapiens

<400> 5862
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Thr Gly Phe Leu Gly Lys Val Leu Met Glu Lys Leu Phe Arg Thr Ser
20 25 30
Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln
35 40 45
Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
50 55 60
Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
65 70 75 80
Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
85 90 95
Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
100 105 110
Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr
115 120 125
Ala Thr Arg Gln Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
130 135 140
Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
145 150 155 160
Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Ile
165 170 175
Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
180 185 190
Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
195 200 205
Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
210 215 220
Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
225 230 235 240
Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
245 250 255
Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
260 265 270
Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
275 280 285
Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
290 295 300
Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
305 310 315 320
Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
325 330 335
Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
340 345 350
Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
355 360 365
Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

370	375	380
Arg	Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp	
385	390	395
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp		400
405	410	415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr		
420	425	430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp		
435	440	445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn		
450	455	460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu		
465	470	475
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val		480
485	490	495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu		
500	505	510
Lys Val		

<210> 5863

<211> 438

<212> DNA

<213> Homo sapiens

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120
agaagtGCCA gtcttaacat tcactgtttg tgactgattt atagaaaaAG gggctggatt
180
ctggtagCCG ggggagCCCa gggtaaacAC tgaggTTCTA ccctgttCTA gtggttgCtt
240
tgattgatac tcagccatGA aaggAACATA gtcagatac tgacAAAACA gctttgtatt
300
tgagtgtgtt tgtccaactg gcaaggaaca gtctggggac aaacagtGCC ttattttggag
360
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420
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438

<210> 5864

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5864
Met Gly Glu Lys Asn Lys Gln Leu Gln Ile Arg His Cys Leu Ser Pro
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Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20 25 30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

35 40 45
Gln Pro Leu Glu Gln Gly Arg Thr Ser Val Phe Thr Leu Gly Ser Pro
50 55 60
Gly Tyr Gln Asn Pro Ala Pro Phe Ser Ile Asn Gln Ser Gln Thr Val
65 70 75 80
Asn Val Lys Thr Gly Thr Ser Cys Leu Glu Thr Gln Ile Leu Phe Gln
85 90 95
Glu Glu Tyr Leu Arg Ile Phe Leu
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<210> 5865

<211> 1229

<212> DNA

<213> Homo sapiens

<400> 5865
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120 aacaacccag gcatagtctt aacctttgtg cttccacgg agcagttcca cttaggcaag
180 attgaggagc ttctcggtga gagaacaggg gccccattct gctccctac cagttccgga
240 tggaggagat cgagggtttc cgctatcgct gcaggtgtcc acccccagga tgccatgcgc
300 tcagtgacta agcaggccat tcgggaggca agattgaagg agatcaagga agagcttctg
360 cattctgaga agcttaagac atactttgaa gacaaccta gggacctcca gctgctgcgg
420 catgacctac ctttgcaccc cgcaagtggtg aagccccacc tggccatgt tcctgactac
480 ctgggttcctc ctgctctccg tggcctggta cgccctcaca agaagcggaa gaagctgtct
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600 aaaggaaaaga aattcagacc cacagccaag ccctcctgag gttgttggc ctctctggag
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720 actgcacagc ctgaacagac agttctgggg ccggcagtgc tggcccttt agctccttgg
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900 ttcggaaagac agctgtgcct ggctctgtgg ctgcatgcag tgcttcactt ggccagcaga
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1080 ctgggagatg ggccttcctg accgcccagcc ttccctcccc cgagcacacg cacatgtaga
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1200

ttctgaacaa ctgttgatgt gtaaaaaaa

1229

<210> 5866

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5866

Xaa Pro Glu Thr Gly Val Ala Arg Gly Ile Asp Phe His His Val Ser
 1 5 10 15
 Ala Val Leu Asn Phe Asp Leu Pro Pro Thr Pro Glu Ala Tyr Ile His
 20 25 30
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr
 35 40 45
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
 50 55 60
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
 65 70 75 80
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
 85 90 95
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
 100 105 110
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
 115 120 125
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
 130 135 140
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
 145 150 155 160
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
 165 170 175
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln
 180 185 190
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr
 195 200 205
 Ala Lys Pro Ser
 210

<210> 5867

<211> 1882

<212> DNA

<213> Homo sapiens

<400> 5867

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 gcgtccccatt gccttcactg cccgttccag gaagctctgg atcaacttca agacaagcga
 180
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 240

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300
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360
cttcaagtac acagagaaac acaaggagat gctgccaaaa tccttcata agctgctccg
420
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480
tttttaagc ccccagactc cttagccctc agagccggca gccccctacc ctcagacaag
540
gaactctctc ctctctttt ggagggaaaa aaaaatatca ctacacaaac caggcactct
600
ccctttctgt ctttctagtt tccttcctt gtctctctc gcctgcctct ctactgttcc
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ccctttctta acacactacc tagaaaagcc attcagtaact ggctctagtc cccgtgagat
720
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780
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1260
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1560
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1620
aataagtgca atcattttga gtctttctat gttgtctaga cggaggggtt tttgtttct
1680
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1740
ccaagagaaa agagtgtatg ttggagtgg aagaaaatcg gtttgaatc tcatgaacct
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1860

gtggtaatca catggtaat tg
1882

<210> 5868
<211> 131
<212> PRT
<213> Homo sapiens

<400> 5868
Met Arg Lys Asn Ser Ser Pro Ser Ser Ile Thr Thr Tyr Glu Thr Cys
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Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ala Arg Ser Arg Lys Leu
20 25 30
Trp Ile Asn Phe Lys Thr Ser Glu Ala Asn Ser Ala Arg Gly Phe Gln
35 40 45
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp
50 55 60
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile
65 70 75 80
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His
85 90 95
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro
100 105 110
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg
115 120 125
Pro Tyr Lys
130

<210> 5869
<211> 910
<212> DNA
<213> Homo sapiens

<400> 5869
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180
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240
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300
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420
caggtaatt cccactctgg ttcaaacagg tttgcattgt cgtcacatcc tggggagaca
480
cgtatccgg tctgcggcaa accttttag ttgtgccata gaccaggttt ttccgaacga
540
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600

agtggtgagg atgaagtgtg gaggttttgt gacagaggag gccgtggaga ggccggcgagc
660
ctgggttagca ccgtaagtca tggcgtaaaa gttcagacaa tgagagtcaa aggtactggc
720
tgactcagag cacaggatcc tttctatccc gggattgcaa tatgcctctt caataagttc
780
catgttgtcc aaatccccc atttgcctct atccaagaat tgccatcgat acggcaaatg
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900
910
gatctgatca

<210> 5870
<211> 129
<212> PRT
<213> Homo sapiens

<400> 5870
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Ser Pro Ser Glu Ser Val Phe Ser Arg Glu Ser Ser Gln Ile Thr Thr
20 25 30
Gly Ser Leu Leu Ile Met His His Glu Ala Ser Thr His Arg Val Ile
35 40 45
Pro Thr Leu Val Gln Thr Gly Leu His Gly Arg His Ile Leu Gly Arg
50 55 60
His Val Phe Gly Ser Ala Ala Asn Leu Phe Ser Cys Ala Ile Asp Gln
65 70 75 80
Val Phe Pro Asn Glu Gly Cys Leu Pro Tyr Ser Cys Gln Glu Pro Asn
85 90 95
Ser Ser Leu Gln Tyr Gln Ile Gln Ser Val Val Arg Met Lys Cys Gly
100 105 110
Gly Leu Val Thr Glu Glu Ala Val Glu Arg Arg Arg Ala Trp Val Ala
115 120 125
Pro

<210> 5871
<211> 2217
<212> DNA
<213> Homo sapiens

<400> 5871
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ttgttctcat tggtttcaaa taacttggttt atttctgtct taattgcatt gtttacccag
120
tagtcattca ggagcaagtt gttcagtttc catatagatt ctgtgtgttt tagtcttgc
180
taaattatctt ctactacttc tttgcaccccc tttgcttagtt ttctcagtgc cgtagggttt
240
attnaataat aattggactc tagtaatccc ttttaatgag agagagggaa actatatttg
300

aaattggatt gggacat~~tta~~ tttact~~taa~~ acagaag~~ttt~~ gcttatgaca cataatctag
360 atgggatata tcttatctat agtgtatcca cctgctgtaa gtagatactg tatttgata
420 gccattattt tgctgttaagt actttatcat tttaattaaa ttgattaaga ggaaaaaaaaa
480 agaatggaaat tctcttgat gcaactttt ccccccagac cagaatccgt agaagctagc
540 cctgtggtag ttgagaaatc caacagttat cccaccagt tatataccag cagctcacat
600 cattcacaca gttacattgg tttgcctat gcggaccata attatggtgc tcgtcctcct
660 ccgacaccc tcgctcccc tcctccatca gtccttatta gcaaaaatga agtaggcata
720 ttaccactc ctaatttga taaaacttcc agtgctacta caatcagcac atctgaggat
780 ggaagttatg gtactgatgt aaccaggtgc atatgtggtt ttacacatga tgatggatac
840 atgatctgtt gtgacaaatg cagcg~~ttt~~gg caacatattg actgc~~at~~g~~gg~~ gattgatagg
900 cagcatat~~t~~c tgatacata tctatgt~~gaa~~ cg~~t~~tg~~t~~cagc ctaggaattt ggataaagag
960 agggcag~~tgc~~ tactacaacg cccggaaaagg gaaaatatgt cagatgg~~t~~ga taccagt~~g~~ca
1020 actgagagtg gtgatgaggt tcctgtggaa ttatatactg catttcagca tactccaaca
1080 tcaattactt taactgcttc aagagt~~ttt~~cc aaagttaatg ataaaagaag gaaaaaaagc
1140 ggggagaaag aacaacacat tcaaaatgt aaaaaggcat ttcgtgaagg atcttaggaag
1200 tcatcaagag ttaaggg~~ttc~~ agctccagag attgatc~~ttt~~ catctgatgg ttcaaattt
1260 g~~g~~atgggaga caaagatcaa agcatggatg gatcgat~~at~~g aagaagcaaa taacaaccag
1320 tacagtgagg gtgttcagag ggaggcacaa agaata~~g~~ctc tgagattagg caatggaaat
1380 gacaaaaaaag agatgaataa atccgattt~~g~~ aataccaaca atttgct~~c~~tt caaac~~c~~c~~t~~c~~t~~
1440 gtagagagcc atataaaaaa gaataagaaa attcttaat ctgcaaaaga tttgcctcct
1500 gatgcactta tcattgaata cagagggaa~~g~~ tttatgctga gagaacagtt tgaagcaat
1560 ggg~~t~~atttct taaaagacc atacc~~ttt~~tt gtgttattct actctaaatt tcatggc~~t~~a
1620 gaaatgtgtg ttgatgcaag gactttggg aatgaggctc gattcatcag g~~c~~gg~~t~~tt~~t~~gt
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1740 tctatacaca gtattccaaa gggactgaa attactattg cctttgattt tgactatgga
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1860 aaacgttagtt ctgaatccat ggaaaatatc aatagtgg~~t~~t atgagaccag acggaaaaaa
1920

10/04/93, le49
B2

WO 00/58473

PCT/US00/08621

ggaaaaaaaag acaaagatat ttcaaaagaa aaagatacac aaaatcagaa tattacttg
1980
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2040
ccactgagac tatcagtatc aaataatcag gaaccagatt ttattgatga tatagaagaa
2100
aaaactcta ttagtaatga agtagaaatg gaatcagagg agcagattgc agaaaggaaa
2160
aggaagatga caagagaaga aagaaaaatg gaagcaattt tgcaagctt tgccggc
2217

<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

Met Glu Phe Ser Leu Met Gln Leu Phe Pro Pro Arg Pro Glu Ser Val
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Glu Ala Ser Pro Val Val Val Glu Lys Ser Asn Ser Tyr Pro His Gln
20 25 30
Leu Tyr Thr Ser Ser Ser His His Ser His Ser Tyr Ile Gly Leu Pro
35 40 45
Tyr Ala Asp His Asn Tyr Gly Ala Arg Pro Pro Pro Thr Pro Pro Ala
50 55 60
Ser Pro Pro Pro Ser Val Leu Ile Ser Lys Asn Glu Val Gly Ile Phe
65 70 75 80
Thr Thr Pro Asn Phe Asp Glu Thr Ser Ser Ala Thr Thr Ile Ser Thr
85 90 95
Ser Glu Asp Gly Ser Tyr Gly Thr Asp Val Thr Arg Cys Ile Cys Gly
100 105 110
Phe Thr His Asp Asp Gly Tyr Met Ile Cys Cys Asp Lys Cys Ser Val
115 120 125
Trp Gln His Ile Asp Cys Met Gly Ile Asp Arg Gln His Ile Pro Asp
130 135 140
Thr Tyr Leu Cys Glu Arg Cys Gln Pro Arg Asn Leu Asp Lys Glu Arg
145 150 155 160
Ala Val Leu Leu Gln Arg Arg Lys Arg Glu Asn Met Ser Asp Gly Asp
165 170 175
Thr Ser Ala Thr Glu Ser Gly Asp Glu Val Pro Val Glu Leu Tyr Thr
180 185 190
Ala Phe Gln His Thr Pro Thr Ser Ile Thr Leu Thr Ala Ser Arg Val
195 200 205
Ser Lys Val Asn Asp Lys Arg Arg Lys Lys Ser Gly Glu Lys Glu Gln
210 215 220
His Ile Ser Lys Cys Lys Lys Ala Phe Arg Glu Gly Ser Arg Lys Ser
225 230 235 240
Ser Arg Val Lys Gly Ser Ala Pro Glu Ile Asp Pro Ser Ser Asp Gly
245 250 255
Ser Asn Phe Gly Trp Glu Thr Lys Ile Lys Ala Trp Met Asp Arg Tyr
260 265 270
Glu Glu Ala Asn Asn Asn Gln Tyr Ser Glu Gly Val Gln Arg Glu Ala
275 280 285
Gln Arg Ile Ala Leu Arg Leu Gly Asn Gly Asp Lys Lys Glu Met

5039

290	295	300
Asn Lys Ser Asp Leu Asn Thr Asn Asn Leu Leu Phe Lys Pro Pro Val		
305	310	315
Glu Ser His Ile Gln Lys Asn Lys Lys Ile Leu Lys Ser Ala Lys Asp		320
325	330	335
Leu Pro Pro Asp Ala Leu Ile Ile Glu Tyr Arg Gly Lys Phe Met Leu		
340	345	350
Arg Glu Gln Phe Glu Ala Asn Gly Tyr Phe Phe Lys Arg Pro Tyr Pro		
355	360	365
Phe Val Leu Phe Tyr Ser Lys Phe His Gly Leu Glu Met Cys Val Asp		
370	375	380
Ala Arg Thr Phe Gly Asn Glu Ala Arg Phe Ile Arg Arg Ser Cys Thr		
385	390	395
400		
Pro Asn Ala Glu Val Arg His Glu Ile Gln Asp Gly Thr Ile His Leu		
405	410	415
Tyr Ile Tyr Ser Ile His Ser Ile Pro Lys Gly Thr Glu Ile Thr Ile		
420	425	430
Ala Phe Asp Phe Asp Tyr Gly Asn Cys Lys Tyr Lys Val Asp Cys Ala		
435	440	445
Cys Leu Lys Glu Asn Pro Glu Cys Pro Val Leu Lys Arg Ser Ser Glu		
450	455	460
Ser Met Glu Asn Ile Asn Ser Gly Tyr Glu Thr Arg Arg Lys Lys Gly		
465	470	475
480		
Lys Lys Asp Lys Asp Ile Ser Lys Glu Lys Asp Thr Gln Asn Gln Asn		
485	490	495
Ile Thr Leu Asp Cys Glu Gly Thr Thr Asn Lys Met Lys Ser Pro Glu		
500	505	510
Thr Lys Gln Arg Lys Leu Ser Pro Leu Arg Leu Ser Val Ser Asn Asn		
515	520	525
Gln Glu Pro Asp Phe Ile Asp Asp Ile Glu Glu Lys Thr Pro Ile Ser		
530	535	540
Asn Glu Val Glu Met Glu Ser Glu Glu Gln Ile Ala Glu Arg Lys Arg		
545	550	555
560		
Lys Met Thr Arg Glu Glu Arg Lys Met Glu Ala Ile Leu Gln Ala Phe		
565	570	575
Ala Gly		

<210> 5873
 <211> 3463
 <212> DNA
 <213> Homo sapiens

<400> 5873
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<212> PRT

<213> Homo sapiens

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Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
380		370	375
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
415		405	410
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
435		420	425
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
445		435	440
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
460		450	455
Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
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Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
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Ile	Ile	Gly	Asp
Gly	Gly	Asp	Asp
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Asp	Asp	Asp	Asp
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Gly	Gly	Asp	Asp
Asp	Asp	Asp	Asp
Asp	Asp	Asp	Asp
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565															
Cys	Glu	Leu	Phe	Gln	Thr	Ser	Pro	Gln	Arg	Gly	Asn	Leu	Pro	Thr	Ser
580															
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595															
Glu	Asp	Glu	Lys	Val	Thr	Met	Phe	Leu	Gln	Ser	Pro	Cys	Pro	Leu	Tyr
610															
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625															
Gly	Ala	Gly	His	Lys	Phe	Arg	Thr	Leu	His	Leu	Pro	Val	Ser	Thr	Thr
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660															
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675															
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Val	Val	Val	Ala	Ser	Gly	Leu	Lys	Ser	Gln	Ser	Lys	Arg	Ala	Val	Ser
705															
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740															
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755															
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770															
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785															
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805															
Arg	Leu	His	Pro	Glu	Lys	Asp	His	Gly	Asp	Leu	Leu	Ala	Ser	Cys	Pro
820															
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835															
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850															
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865															
Leu	Tyr	Pro	Glu	Val	Ile	Gln	Gln	Val	Ser	Ala	Pro	Val	Val	Thr	Ser
885															
Thr	Thr	Gln	Glu	Lys	Pro	Lys	Asp	Ser	Asp	Gln	Phe	Glu	Trp	Val	Thr
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920															
925															

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Pro Ala His Ser Leu Ala Ala Phe Gly Leu Phe Leu Arg Leu Pro Gly		
945	950	955
Tyr Ala Glu Val Leu Leu Lys Glu Arg Lys His Ala Gln Cys Leu Leu		960
965	970	975
Arg Leu Val Leu Gly Val Thr Asp Asp Gly Glu Gly Ser His Ile Leu		
980	985	990
Gln Ser Pro Ser Ala Asn Val Leu Pro Thr Leu Pro Phe His Val Leu		
995	1000	1005
Arg Ser Leu Phe Ser Thr Thr Pro Leu Thr Thr Asp Asp Gly Val Leu		
1010	1015	1020
Leu Arg Arg Met Ala Leu Glu Ile Gly Ala Leu His Leu Ile Leu Val		
1025	1030	1035
Cys Leu Ser Ala Leu Ser His His Ser Pro Arg Val Pro Asn Ser Ser		1040
1045	1050	1055
Val Asn Gln Thr Glu Pro Gln Val Ser Ser Ser His Asn Pro Thr Ser		
1060	1065	1070
Thr Glu Glu Gln Leu Tyr Trp Ala Lys Gly Thr Gly Phe Gly Thr		
1075	1080	1085
Gly Ser Thr Ala Ser Gly Trp Asp Val Glu Gln Ala Leu Thr Lys Gln		
1090	1095	1100
Arg Leu Glu Glu Glu His Val Thr Cys Leu Leu Gln Val Leu Ala Ser		
1105	1110	1115
Tyr Ile Asn Pro Val Ser Ser Ala Val Asn Gly Glu Ala Gln Ser Ser		1120
1125	1130	1135
His Glu Thr Arg Gly Gln Asn Ser Asn Ala Leu Pro Ser Val Leu Leu		
1140	1145	1150
Glu Leu Leu Ser Gln Ser Cys Leu Ile Pro Ala Met Ser Ser Tyr Leu		
1155	1160	1165
Arg Asn Asp Ser Val Leu Asp Met Ala Arg His Val Pro Leu Tyr Arg		
1170	1175	1180
Ala Leu Leu Glu Leu Leu Arg Ala Ile Ala Ser Cys Ala Ala Met Val		
1185	1190	1195
Pro Leu Leu Leu Pro Leu Ser Thr Glu Asn Gly Glu Glu Glu Glu		1200
1205	1210	1215
Gln Ser Glu Cys Gln Thr Ser Val Gly Thr Leu Leu Ala Lys Met Lys		
1220	1225	1230
Thr Cys Val Asp Thr Tyr Thr Asn Arg Leu Arg Ser Lys Arg Glu Asn		
1235	1240	1245
Val Lys Thr Gly Val Lys Pro Asp Ala Ser Asp Gln Glu Pro Glu Gly		
1250	1255	1260
Leu Thr Leu Leu Val Pro Asp Ile Gln Lys Thr Ala Glu Ile Val Tyr		
1265	1270	1275
Ala Ala Thr Thr Ser Leu Arg Arg Ala Asn Gln Glu Lys Lys Leu Gly		1280
1285	1290	1295
Glu Tyr Ser Lys Lys Ala Ala Met Lys Pro Lys Pro Leu Ser Val Leu		
1300	1305	1310
Lys Ser Leu Glu Glu Lys Tyr Val Ala Val Met Lys Lys Leu Gln Phe		
1315	1320	1325
Asp Thr Phe Glu Met Val Ser Glu Asp Glu Asp Gly Lys Leu Gly Phe		
1330	1335	1340
Lys Val Asn Tyr His Tyr Met Ser Gln Val Lys Asn Ala Asn Asp Ala		
1345	1350	1355
Asn Ser Ala Ala Arg Ala Arg Arg Leu Ala Gln Glu Ala Val Thr Leu		1360

1365	1370	1375
Ser Thr Ser Leu Pro Leu Ser Ser Ser Ser Val Phe Val Arg Cys		
1380	1385	1390
Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala		
1395	1400	1405
Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro		
1410	1415	1420
Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly		
1425	1430	1435
Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val		
1445	1450	1455
Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp		
1460	1465	1470
Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser		
1475	1480	1485
Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg		
1490	1495	1500
Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly		
1505	1510	1515
Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg		
1525	1530	1535
Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu		
1540	1545	1550
Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile		
1555	1560	1565
Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His		
1570	1575	1580
Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu		
1585	1590	1595
Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro		
1605	1610	1615
Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp		
1620	1625	1630
Gln Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu		
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<210> 5877
<211> 683
<212> DNA
<213> Homo sapiens

<400> 5877
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120
ctcaactcagg actttcagag gagacgcctg cggggctgca gaaacctcta caagaaggac
180
ctcctcggcc acttcggctg tgtcaatgcc attgaattct ccaacaatgg aggccagtgg
240
ctggtctcag gaggagatga ccgccccgtt ctgctatggc acatggaaaca agccatccac
300
tccagggtca agccataca gctgaaagga gagcaccatt ccaacatttt ttgcctggct
360

ttcaacagt ggaacactaa agtgttctct ggaggcaatg atgagcaagt tatcctccat
 420
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 480
 tctgtgagcc cagtgaatga caacatTTTt gccagttcct cagatgatgg ccgggttctc
 540
 atttgggaca ttcccggaaatc cccccatgga gagcccttct gctgggcaaa ctatccatca
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<210> 5878

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5878

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						20			25			30			
Arg	Gly	Leu	His	Gly	Asp	Pro	Leu	Leu	Thr	Gln	Asp	Phe	Gln	Arg	Arg
					35				40			45			
Arg	Leu	Arg	Gly	Cys	Arg	Asn	Leu	Tyr	Lys	Lys	Asp	Leu	Leu	Gly	His
					50				55			60			
Phe	Gly	Cys	Val	Asn	Ala	Ile	Glu	Phe	Ser	Asn	Asn	Gly	Gly	Gln	Trp
					65			70			75			80	
Leu	Val	Ser	Gly	Gly	Asp	Asp	Arg	Arg	Val	Leu	Leu	Trp	His	Met	Glu
					85				90			95			
Gln	Ala	Ile	His	Ser	Arg	Val	Lys	Pro	Ile	Gln	Leu	Lys	Gly	Glu	His
					100				105			110			
His	Ser	Asn	Ile	Phe	Cys	Leu	Ala	Phe	Asn	Ser	Gly	Asn	Thr	Lys	Val
					115				120			125			
Phe	Ser	Gly	Gly	Asn	Asp	Glu	Gln	Val	Ile	Leu	His	Asp	Val	Glu	Ser
					130				135			140			
Ser	Glu	Thr	Leu	Asp	Val	Phe	Ala	His	Glu	Asp	Ala	Val	Tyr	Gly	Leu
					145				150			155			160
Ser	Val	Ser	Pro	Val	Asn	Asp	Asn	Ile	Phe	Ala	Ser	Ser	Ser	Asp	Asp
					165				170			175			
Gly	Arg	Val	Leu	Ile	Trp	Asp	Ile	Arg	Glu	Ser	Pro	His	Gly	Glu	Pro
					180				185			190			
Phe	Cys	Trp	Ala	Asn	Tyr	Pro	Ser	Ala	Phe	His	Ser	Val	Met	Phe	Asn
					195				200			205			
Pro	Val	Glu	Pro	Arg	Leu	Leu	Ala	Pro	Ala	Asn	Ser	Lys	Glu	Gly	Val
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<210> 5879

<211> 1555

<212> DNA

<213> Homo sapiens

<400> 5879
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120 tccatttggg gtgctgggg acgttattcc cagagaggtg cctcagtgg agcgcgtgtgt
180 ctcctacgca acttctgagg gctggaggt gccaaaggca gctgctgacc gcctggtgct
240 tcaggagctg ggtgctgggg aagccacatg cactgcggcg tccagaggca gaagcacaac
300 caacaagaac cacgaaggag ggcctttcc tcctataatg cctgtttggt gcctctact
360 gacaaagctt atccccttc aaaaaacagc caactgaaaa agctgaattt ggaacataaa
420 gtcataataat ccataaccag caataactatg gggcctgggg tgcgctggcc tttagtgagt
480 ggagtggggc gaaggatgct gcatgtcctg cagtggcac agcggccctg cacggggag
540 aaccatccct gtaaagtgtc agtagtagcc cctgtgtcag tcagggtccc tgcaagaaat
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720 ggctgcctga cagggtgaca ggagctgtga ccttagcca agggcagcca ggaataaaata
780 ctgggaactc acgctctctc ctgtgattgg ccagcaccac tcccccaccc tgacgttgag
840 tgaagacaaa tggaagccag aagtgtggtg agtaccaga catccatgc agcccgctga
900 gaagccacgt gagtggggac agggctaaag gctaggcagg gacaggcgtg gctgtgtccc
960 gaggctgctc ctccggccct gacttcaggc cctcagccca gtcgactccc acaacctcgc
1020 aattggcag catctcctcc accaatatct gagtgaggcc agggttggac acggcaggga
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1260 ctgcttcagg atgaaaaagg cacctgcgcc gtatggacca tggcttcc ccagccaggt
1320 gtaagatcga ttttctcat gcaccttgcata catctccctt tggagcaagt aatccctcag
1380 agcctccaca tcgtagaaat agttggtcag gaactggagt attgtccctt tcttcttctg
1440 actgcctct gggccactg ccgcacccag gcatggatg cccctgatac gcccattcca
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<210> 5880
<211> 185
<212> PRT
<213> Homo sapiens

<400> 5880
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20 25 30
Gly Ser Gln Lys Lys Lys Arg Thr Ile Leu Gln Phe Leu Thr Asn Tyr
35 40 45
Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met
50 55 60
Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
65 70 75 80
His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly
85 90 95
Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
100 105 110
His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
115 120 125
Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu
130 135 140
Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr
145 150 155 160
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165 170 175
Leu Trp Glu Ser Thr Gly Leu Arg Ala
180 185

<210> 5881
<211> 327
<212> DNA
<213> Homo sapiens

<400> 5881
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120
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180
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aagagcctgg agggccgcgg cctggggctg cccgacgcacg ccagccccgg gcacctgcgc
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327

<210> 5882
<211> 109
<212> PRT

<213> Homo sapiens

<400> 5882

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20 25 30
Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
35 40 45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
50 55 60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65 70 75 80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
85 90 95
Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
100 105

<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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120
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180
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360
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480
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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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20 25 30
Thr Arg Asn Glu Phe Ser His Asp Ser Arg Thr Thr Ile Gly Val Glu
35 40 45
Phe Ser Thr Arg Thr Val Met Leu Gly Thr Ala Ala Val Lys Ala Gln
50 55 60
Ile Trp Asp Thr Ala Gly Val
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<210> 5885
<211> 1905
<212> DNA
<213> Homo sapiens

<400> 5885
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120
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180
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240
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420
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480
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<210> 5886

<211> 265

<212> PRT

<213> Homo sapiens

<400> 5886

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Gly	Ala	Gly	Pro	Leu	Tyr	Ser	His	His	Leu	Pro	Thr	Ser	Pro	Leu	Gln		
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Lys	Ala	Leu	Leu	Ala	Ala	Gly	Ser	Ala	Ala	Met	Ala	Leu	Tyr	Asn	Pro		
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Tyr	Arg	His	Asp	Met	Val	Ala	Val	Leu	Gly	Glu	Thr	Thr	Gly	His	Arg		
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Thr	Leu	Lys	Val	Leu	Arg	Asp	Gln	Met	Arg	Arg	Asp	Pro	Glu	Gly	Ala		
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Gln	Ile	Leu	Gln	Glu	Arg	Pro	Arg	Ile	Ser	Thr	Ser	Thr	Leu	Asp	Leu		
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Gly	Lys	Leu	Gln	Ser	Leu	Pro	Glu	Gly	Ser	Leu	Gly	Arg	Glu	Tyr	Leu		
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Arg	Phe	Leu	Asp	Val	Asn	Arg	Val	Ser	Pro	Asp	Thr	Arg	Ala	Pro	Thr		
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Arg	Phe	Val	Asp	Asp	Glu	Glu	Leu	Ala	Tyr	Val	Ile	Gln	Arg	Tyr	Arg		
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Glu	Val	His	Asp	Met	Leu	His	Thr	Leu	Leu	Gly	Met	Pro	Thr	Asn	Ile		
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Leu	Gly	Glu	Ile	Val	Val	Lys	Trp	Phe	Glu	Ala	Val	Gln	Thr	Gly	Leu		

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Gln Ser Leu Gln Val Leu Val Ser Glu Leu Ile Pro Trp Ala Val Gln		
210	215	220
Asn Gly Arg Arg Ala Pro Cys Val Leu Asn Leu Tyr Tyr Glu Arg Arg		
225	230	235
Trp Glu Gln Ser Leu Arg Ala Leu Arg Glu Glu Leu Gly Ile Thr Ala		
240	245	250
Pro Pro Met His Val Gln Gly Leu Ala		
260	265	

<210> 5887
<211> 3779
<212> DNA
<213> Homo sapiens

<400> 5887
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1080

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<210> 5888
 <211> 166
 <212> PRT
 <213> Homo sapiens

<400> 5888
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 Pro Glu Tyr Met Trp Phe Leu Leu Tyr Cys Glu Gly Thr Arg Phe Thr
 35 40 45
 Glu Thr Lys His Arg Val Ser Met Glu Val Ala Ala Ala Lys Gly Leu
 50 55 60
 Pro Val Leu Lys Tyr His Leu Leu Pro Arg Thr Lys Gly Phe Thr Thr
 65 70 75 80
 Ala Val Lys Cys Leu Arg Gly Thr Val Ala Ala Val Tyr Asp Val Thr

85	90	95
Leu Asn Phe Arg Gly Asn Lys Asn Pro Ser	Leu Leu Gly Ile Leu Tyr	
100	105	110
Gly Lys Lys Tyr Glu Ala Asp Met Cys Val	Arg Arg Phe Pro Leu Glu	
115	120	125
Asp Ile Pro Leu Asp Glu Lys Glu Ala Ala Gln	Trp Leu His Lys Leu	
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Tyr Gln Glu Lys Asp Ala Leu Gln Glu Val	Lys Thr Leu Asp Gly Met	
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<210> 5889

<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

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1080

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2198

<210> 5890
<211> 118
<212> PRT
<213> Homo sapiens

<400> 5890
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Glu Cys Ser Gly Thr Ile Thr Ala His Cys Ser Leu Asp Phe Pro Gly
35 40 45
Ser Ser His Ser Pro Thr Ser Ala Ser Gln Ala Val Gly Thr Thr Gly
50 55 60
Glu Glu Arg Gln Gln His Gly Glu Cys Pro Val Pro Thr Pro Trp Lys

65 70 75 80
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85 90 95
Ala Leu Gly Cys Pro Thr Leu Gly Ala Thr Ala Arg Arg Gly Arg Ser
100 105 110
Pro Ala Phe His His Leu
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<210> 5891
<211> 1459
<212> DNA
<213> Homo sapiens

<400> 5891
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120
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<210> 5892
<211> 212
<212> PRT
<213> Homo sapiens

<400> 5892
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Phe Arg Asn Gly Ala Val Tyr Gly Ala Lys Ile Arg Ala Pro His Ala
35 40 45
Leu Val Met Thr Phe Leu Phe Arg Asn Gly Ser Leu Gln Glu Lys Leu
50 55 60
Trp Ala Ile Leu Gln Ala Thr Tyr Ile His Ser Trp Asn Leu Ala Arg
65 70 75 80
Phe Val Phe Thr Tyr Lys Gly Leu Arg Ala Leu Gln Ser Tyr Ile Gln
85 90 95
Gly Lys Thr Tyr Pro Ala His Ala Phe Leu Ala Ala Phe Leu Gly Gly
100 105 110
Ile Leu Val Phe Gly Glu Asn Asn Ile Asn Ser Gln Ile Asn Met
115 120 125
Tyr Leu Leu Ser Arg Val Leu Phe Ala Leu Ser Arg Leu Ala Val Glu
130 135 140
Lys Gly Tyr Ile Pro Glu Pro Arg Trp Asp Pro Phe Pro Leu Leu Thr
145 150 155 160
Ala Val Val Trp Gly Leu Val Leu Trp Leu Phe Glu Tyr His Arg Ser
165 170 175
Thr Leu Gln Pro Ser Leu Gln Ser Ser Met Thr Tyr Leu Tyr Glu Asp
180 185 190
Ser Asn Val Trp His Asp Ile Ser Asp Phe Leu Val Tyr Asn Lys Ser
195 200 205
Arg Pro Ser Asn
210

<210> 5893
<211> 1389
<212> DNA
<213> Homo sapiens

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1389

<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

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Thr	Asp	Arg	Pro	Gly	Phe	His	Asp	Glu	Ser	Ala	Ile	Tyr	Pro	Val	Gly
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Tyr	Cys	Ser	Thr	Arg	Ile	Tyr	Ala	Ser	Met	Lys	Cys	Pro	Asp	Gln	Lys
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Glu	Ile	Val	Pro	Glu	Asp	Asp	Pro	Gln	Asn	Ala	Ile	Val	Ser	Ser	Ser
				100		105								110	
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				145		150								160	
Arg	Lys	Cys	Ile	Asn	Tyr	Gln	Trp	Val	Lys	Phe	Asp	Val	Cys	Lys	Pro
				165		170								175	
Gly	Asp	Gly	Gln	Leu	Pro	Glu	Gly	Leu	Pro	Glu	Asn	Asp	Ala	Ala	Met
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Ser	Phe	Glu	Ala	Phe	Gln	Arg	Gln	Ile	Phe	Asp	Glu	Asp	Gln	Asn	Asp
				195		200								205	
Pro	Leu	Leu	Pro	Gly	Ser	Leu	Asp	Leu	Pro	Glu	Leu	Gln	Pro	Ala	Ala
				210		215								220	
Phe	Val	Ser	Ser	Tyr	Gln	Pro	Met	Tyr	Leu	Thr	His	Glu	Pro	Leu	Val
				225		230								240	
Asp	Thr	His	Leu	Gln	His	Leu	Lys	Ser	Pro	Ser	Gln	Gly	Ser	Pro	Ile
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<210> 5895

<211> 2748

<212> DNA

<213> Homo sapiens

<400> 5895

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420

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<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
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Thr	Ala	Thr	Tyr	Pro	Val	Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu
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Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
					65				70				75		80
Leu	Val	Ser	Thr	Ser	Asn	Thr	Val	Thr	Ala	Ala	His	Ile	Lys	Lys	Phe
					85				90				95		
Thr	Phe	Val	Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe
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Trp	Thr	Pro	Asn	Val	Ser	Glu	Lys	Ile	Leu	Ile	Asp	Ile	Ile	Gly	Val
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Phe	Phe	Pro	Val	Pro	Val	Thr	Val	Arg	Ala	His	Leu	Thr	Gly	Trp	Leu
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Met	Thr	Leu	Lys	Lys	Thr	Phe	Val	Leu	Ala	Pro	Ser	Ser	Val	Leu	Arg
					165				170				175		
Ile	Ile	Val	Leu	Ile	Ala	Ser	Leu	Val	Val	Leu	Pro	Tyr	Leu	Gly	Val

180 185 190
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Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr Val Tyr Arg Lys Gln
210 215 220
Lys Lys Lys Met Glu Asn Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala
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Arg Glu Glu Asn Glu
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<210> 5897

<211> 1930

<212> DNA

<213> Homo sapiens

<400> 5897
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1080

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<210> 5898
 <211> 242
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Glu Val Gly Cys Gly Val Gly Asn Thr Val Phe Pro Ile Leu Gln
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 Thr Asn Asn Asp Pro Gly Leu Phe Val Tyr Cys Cys Asp Phe Ser Ser
 65 70 75 80
 Thr Ala Ile Glu Leu Val Gln Thr Asn Ser Glu Tyr Asp Pro Ser Arg
 85 90 95
 Cys Phe Ala Phe Val His Asp Leu Cys Asp Glu Glu Lys Ser Tyr Pro
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 Val Pro Lys Gly Ser Leu Asp Ile Ile Ile Leu Ile Phe Val Leu Ser
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130 135 140
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145 150 155 160
Asp Met Ala Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn
165 170 175
Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu
180 185 190
Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn
195 200 205
Leu Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met
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<210> 5899
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<212> DNA
<213> Homo sapiens

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<400> 5900
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 Val Leu Ser His Thr Pro Asp Gly Ala Thr Gln Thr Ile Ala Trp Val
 65 70 75 80
 Gly Lys Gly Ile Val Tyr Asp Thr Gly Gly Leu Ser Ile Lys Gly Lys
 85 90 95
 Thr Thr Met Pro Gly Met Lys Arg Asp Cys Gly Ala Ala Val
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 Leu Gly Ala Phe Arg Ala Ala Ile Lys Gln Gly Phe Lys Asp Asn Leu
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 130 135 140
 Arg Pro Asp Asp Ile His Leu Leu Tyr Ser Gly Lys Thr Val Glu Ile
 145 150 155 160
 Asn Asn Thr Asp Ala Glu Gly Arg Leu Val Leu Ala Asp Gly Val Ser
 165 170 175
 Tyr Ala Cys Lys Asp Leu Gly Ala Asp Ile Ile Leu Asp Met Ala Thr
 180 185 190
 Leu Thr Gly Ala Gln Gly Ile Ala Thr Gly Lys Tyr His Ala Ala Val

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Lys Cys Gly Asp Leu Val His Pro Leu Val Tyr Cys Pro Glu Leu His		
225	230	235
Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn Ser Val Ala		
245	250	255
Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe Ile Ala Ser		
260	265	270
His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu Asp Ile Ala		
275	280	285
Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly Val Ala Leu		
290	295	300
Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu Leu Asn Leu		
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<210> 5901

<211> 984

<212> DNA

<213> Homo sapiens

<400> 5901

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<210> 5902
 <211> 328
 <212> PRT
 <213> Homo sapiens

<400> 5902
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 35 40 45
 Val Glu Ala Gly Lys Ala Tyr Val Ser Thr Ser Arg Leu Phe Val Ser
 50 55 60
 Gly Val Arg Asp Leu Ser Gln Gln Cys Gln Gly Asp Thr Val Ile Ser
 65 70 75 80
 Glu Cys Leu Gln Arg Phe Ala Asp Ser Leu Gln Glu Val Val Asn Tyr
 85 90 95
 His Met Ile Leu Phe Asp Gln Ala Gln Arg Ser Val Arg Gln Gln Leu
 100 105 110
 Gln Ser Phe Val Lys Glu Asp Val Arg Lys Phe Lys Glu Thr Lys Lys
 115 120 125
 Gln Phe Asp Lys Val Arg Glu Asp Leu Glu Leu Ser Leu Val Arg Asn
 130 135 140
 Ala Gln Ala Pro Arg His Arg Pro His Glu Val Glu Ala Thr Gly
 145 150 155 160
 Ala Leu Thr Leu Thr Arg Lys Cys Phe Arg His Leu Ala Leu Asp Tyr
 165 170 175
 Val Leu Gln Ile Asn Val Leu Gln Ala Lys Lys Phe Glu Ile Leu
 180 185 190
 Asp Ser Met Leu Ser Phe Met His Ala Gln Ser Ser Phe Phe Gln Gln
 195 200 205
 Gly Tyr Ser Leu Leu His Gln Leu Asp Pro Tyr Met Lys Lys Leu Ala
 210 215 220
 Ala Glu Leu Asp Gln Leu Val Ile Asp Ser Ala Val Glu Lys Arg Glu
 225 230 235 240
 Met Glu Arg Lys His Ala Ala Ile Gln Gln Arg Thr Leu Arg Asp Phe
 245 250 255
 Ser Tyr Asp Glu Ser Lys Val Glu Phe Asp Val Asp Ala Pro Ser Gly
 260 265 270
 Val Val Met Glu Gly Tyr Leu Phe Lys Arg Ala Ser Asn Xaa Phe Lys
 275 280 285
 Thr Trp Asn Arg Arg Trp Phe Ser Ile Gln Asn Ser Gln Leu Val Tyr
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<211> 3734
<212> DNA
<213> Homo sapiens

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<210> 5904

<211> 308

<212> PRT

<213> Homo sapiens

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 35 40 45
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 65 70 75 80
 Gln Gln Tyr Leu Ser Gly Gly Met Cys Gly Tyr Asp Leu Asp Gly Cys
 85 90 95
 Pro Val Trp Tyr Asp Ile Ile Gly Pro Leu Asp Ala Lys Gly Leu Leu
 100 105 110
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 115 120 125
 Glu Leu Leu Leu His Glu Cys Glu Leu Gln Thr Gln Lys Leu Gly Arg
 130 135 140
 Lys Ile Glu Met Ala Leu Met Val Phe Asp Met Glu Gly Leu Ser Leu
 145 150 155 160
 Lys His Leu Trp Lys Pro Ala Val Glu Val Tyr Gln Gln Phe Phe Ser

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Ile Leu Glu Ala Asn Tyr Pro Glu Thr	Leu Lys Asn Leu Ile Val Ile	
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Arg Ala Pro Lys Leu Phe Pro Met Ala Phe Asn Leu Val Lys Ser Phe		
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Met Ser Glu Asp Thr Arg Lys Lys Ile Met Val Leu Gly Ala Asn Trp		
210	215	220
Lys Glu Val Leu Leu Lys His Ile Ser Pro Asp Gln Val Pro Val Glu		
225	230	235
Tyr Gly Gly Thr Met Thr Asp Pro Asp Gly Asn Pro Lys Cys Lys Ser		
245	250	255
Lys Ile Asn Tyr Gly Gly Asp Ile Pro Arg Lys Tyr Tyr Val Arg Asp		
260	265	270
Gln Val Lys Gln Gln Tyr Glu His Ser Val Gln Ile Ser Arg Gly Ser		
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Ser Gln Gln Val Glu Tyr Glu Ile Leu Phe Pro Gly Cys Val Leu Arg		
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Trp Gln Phe Leu		
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<210> 5905
<211> 2280
<212> DNA
<213> Homo sapiens

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360
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<210> 5906
<211> 215
<212> PRT
<213> Homo sapiens

<400> 5906
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 35 40 45
 Ser Ala Gly Val Thr Val Val Ile Val Arg Asp Asp Leu Leu Gly Phe
 50 55 60
 Ala Leu Arg Glu Cys Pro Ser Val Leu Glu Tyr Lys Val Gln Ala Gly
 65 70 75 80
 Asn Ser Ser Leu Tyr Asn Thr Pro Pro Cys Phe Ser Ile Tyr Val Met
 85 90 95
 Gly Leu Val Leu Glu Trp Ile Lys Asn Asn Gly Gly Ala Ala Ala Met
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 Glu Lys Leu Ser Ser Ile Lys Ser Leu Thr Ile Tyr Glu Ile Ile Asp
 115 120 125
 Asn Ser Gln Gly Phe Tyr Val Cys Pro Val Glu Pro Gln Asn Arg Ser
 130 135 140
 Lys Met Asn Ile Pro Phe Arg Ile Gly Asn Ala Lys Gly Asp Asp Ala
 145 150 155 160
 Leu Glu Lys Arg Phe Leu Asp Lys Ala Leu Glu Leu Asn Met Leu Ser
 165 170 175
 Leu Lys Gly His Arg Ser Val Gly Gly Ile Arg Ala Ser Leu Tyr Asn
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 Ala Val Thr Ile Glu Asp Val Gln Lys Leu Ala Ala Phe Met Lys Lys
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<210> 5907

<211> 1989

<212> DNA

<213> Homo sapiens

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<210> 5908
<211> 454
<212> PRT

<213> Homo sapiens

<400> 5908

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 Gln Ile Ala Ala Ser Ala Glu Leu Glu Ser Gly Ala Met Pro Trp Ser
 35 40 45
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 85 90 95
 Ala Thr Lys Glu Gly Ile Pro Lys Ser Asn Arg Ser His Leu Tyr Asn
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 Asp Gln Val Thr Gly Ile Leu Pro Ser Val Glu Leu Leu Phe Asn Leu
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 Asp Arg Ile Thr Thr Val Glu His Leu Leu Lys Ser Val Leu Leu Tyr
 145 150 155 160
 Asn Ile Asn Asn Ser Val Ser Phe Ser Ser Ala Val Lys Cys Val Cys
 165 170 175
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 180 185 190
 Ala Pro Tyr Ser Phe Thr Phe Asn Ser Gln Phe Glu Phe Gly Lys Lys
 195 200 205
 His Lys Trp Ile Gln Ile Asp Val Thr Ser Leu Leu Gln Pro Leu Val
 210 215 220
 Ala Ser Asn Lys Arg Ser Ile His Met Ser Ile Asn Phe Thr Cys Met
 225 230 235 240
 Lys Asp Gln Leu Glu His Pro Ser Ala Gln Asn Gly Leu Phe Asn Met
 245 250 255
 Thr Leu Val Ser Pro Ser Leu Ile Leu Tyr Leu Asn Asp Thr Ser Ala
 260 265 270
 Gln Ala Tyr His Ser Trp Tyr Ser Leu His Tyr Lys Arg Arg Pro Ser
 275 280 285
 Gln Gly Pro Asp Gln Glu Arg Ser Leu Ser Ala Tyr Pro Val Gly Glu
 290 295 300
 Glu Ala Ala Glu Asp Gly Arg Ser Ser His His Arg His Arg Arg Gly
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 Gln Glu Thr Val Ser Ser Glu Leu Lys Lys Pro Leu Gly Pro Ala Ser
 325 330 335
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 340 345 350
 Cys Glu Leu His Asp Phe Arg Leu Ser Phe Ser Gln Leu Lys Trp Asp
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 Asn Trp Ile Val Ala Pro His Arg Tyr Asn Pro Arg Tyr Cys Lys Gly
 370 375 380
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 385 390 395 400
 Met Val Gln Asn Ile Ile Tyr Glu Lys Leu Asp Ser Ser Val Pro Arg

405 410 415
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<210> 5909

<211> 4343

<212> DNA

<213> Homo sapiens

<400> 5909

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<210> 5910

<211> 899
<212> PRT
<213> Homo sapiens

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Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
35 40 45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu
50 55 60
Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys
65 70 75 80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
85 90 95
Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
100 105 110
Glu Val His Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
115 120 125
His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
130 135 140
His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln
145 150 155 160
Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn
165 170 175
Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
180 185 190
Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly
195 200 205
Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met
210 215 220
Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr
225 230 235 240
Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
245 250 255
Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
260 265 270
Arg His Asp Phe Val Arg Arg Asp Arg Pro Leu Arg Val Leu Ile Asp
275 280 285
Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu Asp Asn Leu Gln
290 295 300
Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Thr Arg Asn Gly Pro
305 310 315 320
Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser
325 330 335
Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser
340 345 350
Met Ser Val Ser Thr Gly Ser Gln Ser Ser Ser Val Asn Ser Met Gln
355 360 365
Glu Val Met Asp Glu Ser Ser Ser Glu Leu Val Met Met His Asp Asp
370 375 380
Glu Ser Thr Ile Asn Ser Ser Ser Val Val His Lys Lys Asp His

385	390	395	400
Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro			
405	410	415	
Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg			
420	425	430	
Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile			
435	440	445	
His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr			
450	455	460	
Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn			
465	470	475	480
Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu			
485	490	495	
Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala			
500	505	510	
Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala			
515	520	525	
Asp Glu Lys Lys Phe Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp			
530	535	540	
Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys			
545	550	555	560
Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys			
565	570	575	
Glu Lys Gln Glu Arg Ile Phe Lys His Lys Glu Asn Leu Gln His Thr			
580	585	590	
Gln Ala Glu Glu Glu Ala His Leu Leu Thr Ser Thr Gly Asp Trp Thr			
595	600	605	
Thr Thr Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg			
610	615	620	
His Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg			
625	630	635	640
Thr Met Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser			
645	650	655	
Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg			
660	665	670	
Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu			
675	680	685	
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met			
690	695	700	
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile			
705	710	715	720
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys			
725	730	735	
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys			
740	745	750	
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile			
755	760	765	
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln			
770	775	780	
Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg			
785	790	795	800
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys			
805	810	815	
Ile Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu			

820	825	830
Glu Gln Arg Val Ser Leu Arg Arg Ala His Leu Glu Gln Lys Ile Glu		
835	840	845
Glu Glu Leu Ala Ala Leu Gln Lys Glu Arg Ser Glu Arg Ile Lys Asn		
850	855	860
Leu Leu Glu Arg Gln Glu Arg Glu Ile Glu Thr Phe Asp Met Glu Ser		
865	870	875
Leu Arg Met Gly Phe Gly Asn Leu Val Thr Leu Asp Phe Pro Lys Glu		
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Asp Tyr Arg		

<210> 5911
<211> 645
<212> DNA
<213> Homo sapiens

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180
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300
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420
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480
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540
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645

<210> 5912
<211> 211
<212> PRT
<213> Homo sapiens

<400> 5912
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Cys Arg Pro Glu Leu Phe Leu Phe Gly Asn Leu Gly Ser Ser Ala Glu
20 25 30
Asp Leu Ile Leu Pro Asp Gly Gly Thr Pro Ala Gly Thr Ser Ser Pro
35 40 45
Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

50	55	60
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Thr	Arg	Asp
Leu	Phe	Val
Ile	Val	Asp
Asp	Asp	Pro
Lys		Lys
65	70	75
His	Val	Cys
Thr	Met	Glu
Thr	Tyr	Thr
Ile	Tyr	Arg
85		90
Ser	Thr	Arg
Val	Glu	Phe
Asp	Leu	Pro
100	105	110
Tyr	Gln	Asp
Phe	Asp	Trp
Leu	Arg	Ser
Lys	Leu	Glu
Glu	Ser	Gln
115	120	125
Thr	His	Leu
Ile	Pro	Pro
Leu	Pro	Glu
Lys	Phe	Val
130	135	140
Val	Asp	Arg
Phe	Ser	Glu
Glu	Glu	Phe
145	150	155
Asp	Lys	Phe
Leu	Lys	Arg
Ile	Thr	Asp
165		170
Glu	His	Phe
Asn	Ile	Phe
Leu	Thr	Ala
Lys	Asp	Lys
180	185	190
Lys	Gln	Gly
Ile	Ala	Leu
Leu	Thr	Arg
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Ser	Val	Lys
His		
210		

<210> 5913

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 5913

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2400

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<210> 5914
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 5914
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 Cys Cys Glu Gly Tyr Ser Tyr His Val Val Ser Trp Glu Val Phe Leu
 20 25 30
 Arg Ser Phe Ser Ile Leu Arg Leu Trp Phe Ser Ile Leu Phe Leu Thr
 35 40 45
 Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala
 50 55 60
 Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly
 65 70 75 80
 Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala
 85 90 95
 Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val
 100 105 110
 Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr
 115 120 125
 Pro Gly Arg Asn Ala Arg Glu Phe Leu Gln Cys Val Glu Lys Ala Xaa
 130 135 140
 Glu Asp Met Phe Asp Ala Leu Glu Gly Lys Ser Ile Lys Ser
 145 150 155

<210> 5915
 <211> 457
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360
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 457

<210> 5916
<211> 152
<212> PRT
<213> Homo sapiens

<400> 5916
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20 25 30
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35 40 45
Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys
50 55 60
Trp Ile Leu Gln Asp Lys Pro Val Phe Met Glu Glu Pro Asp Arg Lys
65 70 75 80
Asp Val Ala Gln Glu Asp Ala Glu Lys Leu Gly Phe Ser Glu Thr Asp
85 90 95
Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser
100 105 110
Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val
115 120 125
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130 135 140
Gln Val Phe Leu Ala Asn Ser Ala
145 150

<210> 5917
<211> 3727
<212> DNA
<213> Homo sapiens

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120
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600

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1020
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1080
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1320
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1440
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2700
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2820
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3240
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3540
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3600
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3660
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<211> 981

<212> PRT

<213> Homo sapiens

<400> 5918

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Pro Gly Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly
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Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn
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Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser
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Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser
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Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys
145 150 155 160
Arg Glu Ser Ser Gly Gly Gly Phe His Phe Val Cys Tyr Val Phe
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Gln Cys Thr Asn Glu Ala Leu Val Asp Glu Ile Met Met Thr Leu Lys
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Gln Ala Phe Thr Val Ala Ala Val Gln Gln Thr Ala Lys Ala Pro Ala
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Gln Leu Cys Glu Gly Cys Pro Leu Gln Ser Leu His Lys Leu Cys Glu
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Arg Ile Glu Gly Met Asn Ser Ser Lys Thr Lys Leu Glu Leu Gln Lys
225 230 235 240
His Leu Thr Thr Leu Thr Asn Gln Glu Gln Ala Thr Ile Phe Glu Glu
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His Ile Gly Glu Met Lys Gln Thr Ser Gln Met Ala Ala Glu Asn Ile
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Gly Ser Glu Leu Pro Pro Ser Ala Thr Arg Phe Arg Leu Asp Met Leu
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Lys Asn Lys Ala Lys Arg Ser Leu Thr Glu Ser Leu Glu Ser Ile Leu
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340 345 350
Asp Leu Asp Ser Ser Leu Ser Ser Thr Leu Ser Asn Thr Ser Lys Glu
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Pro Ser Val Cys Glu Lys Glu Ala Leu Pro Ile Ser Glu Ser Ser Phe
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Tyr His Ser Val Ser Thr Glu Thr Pro His Glu Arg Lys Asp Phe Glu			
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Ser Lys Ala Asn His Leu Gly Asp Ser Gly Gly Thr Pro Val Lys Thr			
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Pro Phe Gly Pro His Gln Arg Lys Arg Lys Gly His Leu Val Ser Ser			
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Phe His Leu Lys His Gln Phe Pro Ser Lys Gln Gln Pro Lys Asp Val			
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Ser Leu Leu Asp Gln Glu Val Gly Tyr Cys Gln Gly Leu Ser Phe Val			
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Ala Gly Ile Leu Leu Leu His Met Ser Glu Glu Ala Phe Lys Met			
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Leu Lys Phe Leu Met Phe Asp Met Gly Leu Arg Lys Gln Tyr Arg Pro			
740	745	750	
Asp Met Ile Ile Leu Gln Ile Gln Met Tyr Gln Leu Ser Arg Leu Leu			
755	760	765	
His Asp Tyr His Arg Asp Leu Tyr Asn His Leu Glu Glu His Glu Ile			
770	775	780	
Gly Pro Ser Leu Tyr Ala Ala Pro Trp Phe Leu Thr Met Phe Ala Ser			
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Phe Ile Lys Ser Thr Leu Pro Asn Leu Gly Leu Val Gln Met Glu Lys		
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Thr Ile Asn Gln Val Phe Glu Met Asp Ile Ala Lys Gln Leu Gln Ala		
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Tyr Glu Val Glu Tyr His Val Leu Gln Glu Glu Leu Ile Asp Ser Ser		
885	890	895
Pro Leu Ser Asp Asn Gln Arg Met Asp Lys Leu Glu Lys Thr Asn Ser		
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<212> DNA

<213> Homo sapiens

<400> 5919

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<212> DNA

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<400> 5922
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 Gln Lys Ser Val Ser Lys His Lys Ser Ser Ser Lys Ile Ile Cys Cys
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 Ile Ile Ser Ile Arg Asn Lys Asn Gly Glu Glu Lys Val Lys Ile Glu
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 Arg Pro Gly Gly Ser Leu Ser Pro Ile Trp Ser Ile Cys Trp Asn Pro
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 Ser Ser Arg Trp Glu Ser Phe Trp Met Asn Arg Glu Asn Glu Asp Ala
 145 150 155 160
 Glu Asp Val Ile Val Asn Arg Tyr Ile Gln Glu Ile Pro Ser Thr Leu
 165 170 175
 Lys Ser Ala Val Tyr Ser Ser Gln Gly Ser Glu Ala Glu Glu Glu
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 Pro Glu Glu Glu Asp Asp Ser Pro Arg Asp Asp Asn Leu Glu Glu Arg
 195 200 205
 Asn Asp Ile Leu Ala Val Ala Asp Trp Gly Gln Lys Val Ser Phe Tyr

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Gly	Ser	Asp	Lys	Gln	Val	Ser	Leu	Phe	Thr	Lys	Asp	Gly	Val	Arg	Leu		
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Gly	Thr	Val	Gly	Glu	Gln	Asn	Ser	Trp	Val	Trp	Thr	Cys	Gln	Ala	Lys		
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Pro	Asp	Ser	Asn	Tyr	Val	Val	Val	Gly	Cys	Gln	Asp	Gly	Thr	Ile	Ser		
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Phe	Tyr	Gln	Leu	Ile	Phe	Ser	Thr	Val	His	Gly	Leu	Tyr	Lys	Asp	Arg		
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Leu Leu Asn Asn Leu Gly Asn Val Cys Ile Asn Cys Arg Gln Pro Phe		
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Ile Phe Ser Ala Ser Ser Tyr Asp Val Leu His Leu Val Glu Phe Tyr		
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Cys Phe Gln Val Gly Gly His	Pro Gly Ser Ser His Val Leu Leu Leu	
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Glu Gly Gly Ala His Pro Trp Leu Gln Val	Gly Thr Glu Ala Cys Leu	1200
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<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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<212> PRT

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<210> 5925

<211> 4538

<212> DNA

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<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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<212> DNA

<213> Homo sapiens

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<210> 5928

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5928

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Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg	Ile Ile Gln Gln		
130	135	140	
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys	His Phe Leu His		
145	150	155	160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly	Leu Ser Glu Ala		
165	170	175	
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln	Ser Asp Ile Val		
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

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606

<210> 5930
<211> 144
<212> PRT
<213> Homo sapiens

<400> 5930
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Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg
35 40 45
Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
50 55 60
Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
65 70 75 80
His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
85 90 95
Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
100 105 110
Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
115 120 125
Gly Ala His His His His His His His His Pro His Pro His His Ala
130 135 140

<210> 5931
<211> 478
<212> DNA
<213> Homo sapiens

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120
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180
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240
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300
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360
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478

<210> 5932
<211> 109
<212> PRT
<213> Homo sapiens

<400> 5932
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 Leu Val Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu
 20 25 30
 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln
 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
 65 70 75 80
 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu
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 Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Gly Thr Thr
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<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

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 180
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 1953

<210> 5934
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 5934
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 20 25 30
 Ser Lys Val Arg Glu Gln Leu Glu Gln Glu Leu Glu Leu Thr Ala
 35 40 45
 Ser Leu Phe Glu Glu Ala His Lys Met Val Arg Glu Ala Asn Met Lys
 50 55 60
 Gln Ala Ala Ser Glu Lys Gln Leu Lys Glu Ala Arg Gly Lys Ile Asp
 65 70 75 80
 Met Leu Gln Ala Glu Val Thr Ala Leu Lys Thr Leu Val Ile Thr Ser
 85 90 95
 Thr Pro Ala Ser Pro Asn Arg Glu Leu His Pro Gln Leu Leu Ser Pro

100	105	110
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115	120	125
Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr		
130	135	140
Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe		
145	150	155
Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu		160
165	170	175
Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met		
180	185	190
Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu		
195	200	205
Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala		
210	215	220
Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr		
225	230	235
Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr		240
245	250	255
Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe		
260	265	270
Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala		
275	280	285
Glu Pro Met Phe Trp Glu Ile Met Arg Leu Arg Lys Glu Met Ser Leu		
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<210> 5935
<211> 2727
<212> DNA
<213> Homo sapiens

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360
caacatctgc ctaaaggagt ttatgaccct ggaagagatg gatcagaaaa aaagatccgg
420
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660
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720
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780
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1140
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2040
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2100
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2160
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2220

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2280
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2340
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2460
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2580
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2727

<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

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					20				25				30		
Asp	Gln	Glu	Pro	Pro	Pro	Pro	Tyr	Gln	Glu	Gln	Val	Pro	Val	Pro	Val
							35		40			45			
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
						50		55			60				
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
						65		70			75			80	
Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
						85			90			95			
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
						100			105			110			
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
						115			120			125			
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
						130			135			140			
Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
						145			150						

<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

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660
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720
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1536

<210> 5938
<211> 406
<212> PRT

<213> Homo sapiens

<400> 5938

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Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
35 40 45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
50 55 60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
65 70 75 80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
85 90 95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
100 105 110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
115 120 125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
130 135 140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145 150 155 160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
165 170 175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
180 185 190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
195 200 205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
210 215 220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
225 230 235 240
Trp Ala Leu Leu Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
245 250 255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
260 265 270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
275 280 285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
290 295 300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305 310 315 320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
325 330 335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
340 345 350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
355 360 365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
370 375 380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
385 390 395 400
Val Ile Glu Asp Lys Asn

405

<210> 5939
 <211> 795
 <212> DNA
 <213> Homo sapiens

<400> 5939
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 660
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 780
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 795

<210> 5940
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 5940
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 Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
 35 40 45
 Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
 50 55 60
 Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
 65 70 75 80
 Thr Ala Pro Gly Gly Pro Ala Gly Ala Thr Ala Thr Phe Ser Lys Ala

5121

85

90

95

<210> 5941
<211> 2590
<212> DNA
<213> Homo sapiens

<400> 5941
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp		
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Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe		80
85	90	95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro		
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Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg		
115	120	125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys		
130	135	140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu		
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<212> DNA

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Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
65 70 75 80
Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu
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<212> PRT
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<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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Glu Glu Ile Ile Lys Arg Val Phe Asp Pro Ala Leu Asn Leu Phe Lys
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Thr Thr Ser Gly Asp Glu Arg Leu Tyr Pro Ser Pro Thr Ser Tyr Ile
85 90 95
His Glu Asn Tyr Leu Gln Leu Phe Glu Phe Val Gly Lys Met Leu Gly
100 105 110
Lys Ala Val Tyr Glu Gly Ile Val Val Asp Val Pro Phe Ala Ser Phe
115 120 125
Phe Leu Ser Gln Leu Leu Gly His His His Ser Val Phe Tyr Ser Ser
130 135 140
Val Asp Glu Leu Pro Ser Leu Asp Ser Glu Phe Tyr Lys Asn Leu Thr
145 150 155 160
Ser Ile Lys Arg Tyr Asp Gly Asp Ile Thr Asp Leu Gly Leu Thr Leu
165 170 175
Ser Tyr Asp Glu Asp Val Met Gly Gln Leu Val Cys His Glu Leu Ile
180 185 190
Pro Gly Gly Lys Thr Ile Pro Val Thr Asn Glu Asn Lys Ile Ser Tyr
195 200 205
Ile His Leu Met Ala His Phe Arg Met His Thr Gln Ile Lys Asn Gln

210 215 220
Thr Ala Ala Leu Ile Ser Gly Phe Arg Ser Ile Ile Lys Pro Glu Trp
225 230 235 240
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp
245 250 255
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr
260 265 270
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile
275 280 285
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe
290 295 300
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys
305 310 315 320
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr
325 330 335
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys
340 345 350
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu
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Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu
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<210> 5951
<211> 1724
<212> DNA
<213> Homo sapiens

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720

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 1080
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<210> 5952
 <211> 378
 <212> PRT
 <213> Homo sapiens

<400> 5952
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 20 25 30
 Ala Pro Arg Phe Pro Pro Gly Gly Phe Ala Ala Gly Arg Thr Met Leu
 35 40 45
 Leu Lys Glu Tyr Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys
 50 55 60
 Ile Gly Gln Leu Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp
 65 70 75 80
 Arg Gly Glu Gly Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro
 85 90 95
 His His Gly Asn Gly Gln Phe Thr Glu Lys Arg Val Tyr Leu Asn Ser

100	105	110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val		
115	120	125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr		
130	135	140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu		
145	150	155
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp		
165	170	175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro		
180	185	190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu		
195	200	205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln		
210	215	220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp		
225	230	235
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp		
245	250	255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp		
260	265	270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln		
275	280	285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile		
290	295	300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser		
305	310	315
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val		
325	330	335
Pro Lys Asp Arg Pro Arg Lys Lys Ser Ala Pro Glu Thr Leu Thr Leu		
340	345	350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser		
355	360	365
Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu		
370	375	

<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

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360

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660
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<210> 5954

<211> 152

<212> PRT

<213> Homo sapiens

<400> 5954

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20 25 30
Cys Leu Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr
35 40 45
Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu
50 55 60
Val Gln Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu
65 70 75 80
Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala
85 90 95
Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile
100 105 110
Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser
115 120 125
Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys
130 135 140
Thr Lys Pro Val Ile Leu Gly Leu
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<210> 5955

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5955

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<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

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Arg	Phe	Lys	Ala	Leu	Pro	Pro	Gly	Ala	Gln	Pro	Val	Ile	Cys	Ile	His	
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Ser	Ala	Cys	Thr	Trp	Ala	Asp	Asp	Leu	Ser	Val	Cys	Tyr	Pro	Ser	Pro	
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His	Ile	Thr	Ile	His	Met	His	Gly	Gly	Thr	Ser	Ser	Asp	Gly	Ser	Ser	
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Glu	Val	Leu	Leu	Val	Ser	Glu	Asp	Gly	Lys	Ile	Leu	Ala	Glu	Ala	Asp	
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Gly	Leu	Ser	Thr	Asn	His	Trp	Leu	Ile	Gly	Thr	Asp	Lys	Cys	Val	Glu	
										115	120		125			
Arg	Ile	Asn	Glu	Met	Val	Asn	Arg	Ala	Lys	Arg	Lys	Ala	Gly	Val	Asp	
										130	135		140			
Pro	Leu	Val	Pro	Leu	Arg	Ser	Leu	Gly	Leu	Ser	Leu	Ser	Gly	Gly	Asp	
										145	150		155		160	
Gln	Glu	Asp	Ala	Gly	Arg	Ile	Leu	Ile	Glu	Glu	Leu	Arg	Asp	Arg	Phe	
										165		170		175		
Pro	Tyr	Leu	Ser	Glu	Ser	Tyr	Leu	Ile	Thr	Thr	Asp	Ala	Ala	Gly	Ser	
										180	185		190			
Ile	Ala	Thr	Ala	Thr	Pro	Asp	Gly	Gly	Val	Val	Leu	Ile	Ser	Gly	Thr	
										195	200		205			
Gly	Ser	Asn	Cys	Arg	Leu	Ile	Asn	Pro	Asp	Gly	Ser	Glu	Ser	Gly	Cys	
										210	215		220			
Gly	Gly	Trp	Gly	His	Met	Met	Gly	Asp	Glu	Gly	Ser	Ala	Leu	Ser	Ala	
										225	230		235		240	
Pro	Ser	Ala	Tyr	Trp	Ile	Ala	His	Gln	Ala	Val	Lys	Ile	Val	Phe	Asp	
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Ser	Ile	Asp	Asn	Leu	Glu	Ala	Ala	Pro	His	Asp	Ile	Gly	Tyr	Val	Lys	
										260	265		270			
Gln	Ala	Ala	Met	Phe	His	Tyr	Phe	Gln	Val	Pro	Asp	Arg	Leu	Gly	Ile	Leu
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Thr	His	Leu	Tyr	Arg	Asp	Phe	Asp	Lys	Cys	Arg	Phe	Ala	Gly	Phe	Cys	
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Arg	Lys	Ile	Ala	Glu	Gly	Ala	Gln	Gln	Gly	Asp	Pro	Leu	Ser	Arg	Tyr	
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Ile	Phe	Arg	Lys	Ala	Gly	Glu	Met	Leu	Gly	Arg	His	Ile	Val	Ala	Val	
										325	330		335			
Leu	Pro	Glu	Ile	Asp	Pro	Val	Leu	Phe	Gln	Gly	Lys	Ile	Gly	Leu	Pro	
										340	345		350			
Ile	Leu	Cys	Val	Gly	Ser	Val	Trp	Lys	Ser	Trp	Glu	Leu	Leu	Lys	Glu	
										355	360		365			
Gly	Phe	Leu	Leu	Ala	Leu	Thr	Gln	Gly	Arg	Glu	Ile	Gln	Ala	Gln	Asn	
										370	375		380			
Phe	Phe	Ser	Ser	Phe	Thr	Leu	Met	Lys	Leu	Arg	His	Ser	Ser	Ala	Leu	
										385	390		395		400	
Gly	Gly	Ala	Ser	Leu	Gly	Ala	Arg	His	Ile	Gly	His	Leu	Leu	Pro	Met	
										405	410		415			
Asp	Tyr	Ser	Ala	Asn	Ala	Ile	Ala	Phe	Tyr	Ser	Tyr	Thr	Phe	Ser		
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<210> 5957
<211> 855

<212> DNA
<213> Homo sapiens

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180 gttcaagagg tgatggaaga agagtgaaat gctttgcagt cagtggagaa ttgtccagaa
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300 ctgatcaacc aaggcctgtg atacttgggc tgtgatcctc tagagccagc ttggactcac
360 atcattctat ggggttgaag acaactcatt ccctctgagg agccttgtac atacaagcct
420 ttatattata acttattttg tattgaaact tttaaacaat actgaagaaa aaaaaacttt
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540 aaactgcctt ggaggagata aaccaatttt atgtctatca tgttatacaa aaatctagaa
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<210> 5958
<211> 106
<212> PRT
<213> Homo sapiens

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35 40 45
Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val
50 55 60
Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu
65 70 75 80
Asp Leu Ala Gln Leu Glu Leu Ile Asp Met Ala Val Leu Glu Glu
85 90 95
Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu

100

105

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<210> 5959
<211> 830
<212> DNA
<213> Homo sapiens

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720
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<210> 5960
<211> 251
<212> PRT
<213> Homo sapiens

<400> 5960
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Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
35 40 45
Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
50 55 60
Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
55 70 75 80
Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

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85	90	95
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100	105	110
Ile Thr Asp Arg Tyr Lys Asn Leu Pro Thr Ala Ser Arg Lys Leu Gln		
115	120	125
Phe Leu Glu Leu Gln Lys Asp Leu Val Asp Asp Phe Arg Ile Arg Leu		
130	135	140
Thr Gln Val Met Lys Glu Glu Thr Arg Ala Ser Leu Gly Phe Arg Tyr		
145	150	155
160		
Cys Ala Ile Leu Asn Ala Val Asn Tyr Ile Ser Thr Val Leu Ala Asp		
165	170	175
Trp Ala Asp Asn Val Phe Phe Leu Gln Leu Gln Ala Ala Leu Glu		
180	185	190
Val Phe Ala Glu Asn Asn Thr Leu Ser Lys Leu Gln Leu Gly Gln Leu		
195	200	205
Ala Ser Met Glu Ser Ser Val Phe Asp Asp Met Ile Asn Leu Leu Glu		
210	215	220
Arg Leu Lys His Asp Met Leu Thr Arg Gln Val Asp His Val Phe Arg		
225	230	235
240		
Glu Val Lys Asp Ala Ala Lys Leu Tyr Lys Lys		
245	250	

<210> 5961

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5961

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<210> 5962

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5962

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 Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
 35 40 45
 Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
 50 55 60
 Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
 65 70 75 80
 Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
 85 90 95
 Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
 100 105 110
 Pro Ser

<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

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 gaagaaaaag taaaacgatc tgtgaaagat gctgccaaga agggccagaa ggatgtctgc
 180
 atagttctgg ccaaggagat gatcaggatc aggaaggctg tgagcaagct gtatgcattc
 240
 aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgccgt cttgcgagtg
 300
 gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
 360
 ccagagattc aggccaccat gagggagttt tccaaagaaa tgatgaaggc tgggatcata
 420
 gaggagatgt tagaggacac ttttggaaagc atggacgatc aggaagaaat ggaggaagaa
 480
 gcagaaatgg aaattgacag aattctttt gaaattacag cagggccctt gggcaaagca
 540
 cccagtaaag tgactgatgc cttccagag ccagaacatc caggagcgat ggctgcctca
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 660
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 720
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 780
 ttgtctcttt tcattctctg cccaggtttt gggatcgcaa agggattgtt cttataaaag
 840
 tggcataaat aaatgcata ttttaggag tatagacaga tatatcttat tgtggggagg
 900

ggaaagaaaat ccatctgctc atgaaggact tctgaaaata tagtgattg cctgaatgtc
 960
 gaagactcta ctttgtcta taaaacacta tataaatgaa ttttaataaa ttttgcttc
 1020
 agcaacttggc cccattgttag attgccctgt gcagtaaact ttcaaggtgt cagctgcccc
 1080
 agattgcttc atttgctggg tgtggaaaga gttgctatgg ccaggcatat gggatttgga
 1140
 agctcagcag aagtgacttc tgctctgtgg ttgctgtcc ccggctttca cagacatggt
 1200
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 1260
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 1288

<210> 5964
<211> 222
<212> PRT
<213> Homo sapiens

<400> 5964
 Met Gly Leu Phe Gly Lys Thr Gln Glu Lys Pro Pro Lys Glu Leu Val
 1 5 10 15
 Asn Glu Trp Ser Leu Lys Ile Arg Lys Glu Met Arg Val Val Asp Arg
 20 25 30
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val
 35 40 45
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
 50 55 60
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
 65 70 75 80
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
 85 90 95
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
 100 105 110
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
 115 120 125
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
 130 135 140
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu
 145 150 155 160
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
 165 170 175
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
 180 185 190
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu Glu
 195 200 205
 Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser
 210 215 220

<210> 5965
<211> 1011
<212> DNA
<213> Homo sapiens

<400> 5965
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 120
 agatgcctgg agagaatgag aaacagccgg gacaggctcc taaacaggtt cgcggaggct
 180
 ggaaggcagtggccaggaa ttctcagaac agctttctag ttcaagaggtt gatgaaagaa
 240
 gagtggaatg ctttgcagnn tcagtgggnag aattgtccag aagacttggc tcagttggag
 300
 gagctgatag acatggctgt gctggaggaa attcaacagg agctgatcaa ccaagagcag
 360
 tccatcatca gcgagttatga gaagagctt cagtttgcgtt aaaagtgtct cagcatcatg
 420
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 480
 atcacaagcg gtgtgggtgt gtgtcagtgtt ggcctgtcca tcccatctca ttcttctgag
 540
 ttgacagagc agaagcttcg tgccctgttta gagggttagta taaatgagca cagtgcacat
 600
 tgcctccaca cacctgaatt ttcaagtcaactt ggaggaacag aagaaaaagtc cagtcttc
 660
 atgagctgtc tggcctgtga tacttggct gtgatcctt agagccagct tggactcaca
 720
 tcattctatg ggggtgaaga caactcatc cctctgagga gccttgcata tacaaggcctt
 780
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 840
 ccgacatctg ttcttggctt tttgtgacgc aggttgaagg gggaggaata gaaaaagaca
 900
 aactgcctt gaggagataa accaatttttgtt tgcattatcat gttatacaaa aatctagaaa
 960
 taatagattt gtacagaaaaaa aaatgataat aaatgagaac acaaaacata t
 1011

<210> 5966
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 5966
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 20 25 30
 Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn
 35 40 45
 Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly
 50 55 60
 Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu
 65 70 75 80
 Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu

85 90 95
Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu Ile Gln
100 105 110
Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile Ile Ser Glu Tyr Glu Lys
115 120 125
Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser Ile Met Leu Ala Glu Trp
130 135 140
Glu Ala Asn Pro Leu Ile Cys Pro Val Cys Thr Lys Tyr Asn Leu Arg
145 150 155 160
Ile Thr Ser Gly Val Val Val Cys Gln Cys Gly Leu Ser Ile Pro Ser
165 170 175
His Ser Ser Glu Leu Thr Glu Gln Lys Leu Arg Ala Cys Leu Glu Gly
180 185 190
Ser Ile Asn Glu His Ser Ala His Cys Pro His Thr Pro Glu Phe Ser
195 200 205
Val Thr Gly Gly Thr Glu Glu Lys Ser Ser Leu Leu Met Ser Cys Leu
210 215 220
Ala Cys Asp Thr Trp Ala Val Ile Leu
225 230

<210> 5967

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5967
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120 tgtgcttttgc ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
180 atcttttcc tctatttaga aatggatttc aatggtgttc agtttgggtt cagaaaccta
240 ctgaaagtga gcatgtttt gaacacatta acacccaatg tctacgtggc cctaacaaggc
300 acttcctcac taatatcagg gcttattttg atatttgaat ggtggatttt tcgcaaatac
360 ggaacttcat tcattgaaca agtctcagta agccacttgc gcccccttct gggaggggtt
420 gacaacaact cttccaacaa ttcttaattcc agtaacgggg actcagattc caataggcaa
480 agtgtctcag aatgcaaagt atggcgaaat ccactaaatt tatttagggg tgctgaatac
540 aatcggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctct
600 gcccacacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgccatgc
660 ataatgcaga aagcctggag agagagaaac ccccaagcta ggatttctgc agctcatgaa
720 gccttggaga taaaatgagac gagacaccaa tgtctggtg tacatcaaaa gaaggctagc
780 aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
840

tatgctgatg ttcagggagt cttagcaaag tatgatgata taagcttacc aaagtcagca
 900
 acaatatgtc acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcc
 960
 gaggctgcat ctcggcgaaa gctgagcaca gcagagatga atgcagtaga ggccattcat
 1020
 agagctgtgg aattcaatcc tcatgtgccaa aataacctac tagaaatgaa aagcttaatc
 1080
 ctacccccag aacatatcct gaagagagga gacagtgaag caatagcata tgcattctt
 1140
 catcttgcac actggaagag agtggaaaggg gctttgaatc ttttgcattt tacgtggaa
 1200
 ggcacttttc ggatgatccc ttatcccttg gaaaaggggc acctatttta tccttaccca
 1260
 atctgtacag aaacagcaga ccgagagctg cttccatctt tccatgaagt ctcatgttac
 1320
 ccaaagaagg agctccctt ctttattctc tttactgctg gattatgttc cttcacagcc
 1380
 atgctggccc tcctgacaca tcagttcccg gaacttatgg gggcttcgc aaaagctgtg
 1440
 agtgtttgcc tagagggagg ctttgggaa tggatgggaa aagccaaggg cataaaagca
 1500
 gcgtgagaga aatggggttt ctttacagaa atgggtacga gcctgcaaag atcattgtc
 1560
 accatTTAAT tttcatgatc gtcaatggaa tcaaagcatt aagggtcaaa tgagaaagt
 1620
 caggttGTTA ctgcatgcct tgcctcattt cacaacaaat tcttagcagt ttccaaaaaa
 1680
 tgcaggaggt ccaaaaggat ggaatgattt aggaaatctt agcaaatgaa aatgtgtgg
 1740
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 1800
 ctttcc
 1806

<210> 5968
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 5968
 Met Asp Phe Asn Gly Val Gln Phe Val Cys Arg Asn Leu Leu Lys Val
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 Ser Met Phe Leu Asn Thr Leu Thr Pro Lys Phe Tyr Val Ala Leu Thr
 20 25 30
 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp
 35 40 45
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser
 50 55 60
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn
 65 70 75 80
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser
 85 90 95
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu

100	105	110
Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr		
115	120	125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp		
130	135	140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg		
145	150	155
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu		160
165	170	175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala		
180	185	190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu		
195	200	205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr		
210	215	220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala		
225	230	235
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala		240
245	250	255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile		
260	265	270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu		
275	280	285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp		
290	295	300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg		
305	310	315
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe		320
325	330	335
Arg Met Ile Pro Tyr Pro Leu Glu Lys His Leu Phe Tyr Pro Tyr		
340	345	350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His		
355	360	365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe		
370	375	380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His		
385	390	395
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys		400
405	410	415
Leu Glu Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys		
420	425	430
Ala Ala		

<210> 5969

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5969

cggccgccccg tgtgtgacgt cagggagctg caggcccagg aagccttgca gaacggccag
 60 ctggggcgccg gggaaagggtt cccggatctg cagcctgggg tcttggccag ccaggccatg
 120

attgagaaga tcctgagcga ggaccccccgg tggcaagatg ccaacttcgt gctgggcage
 180
 tacaagacgg agcagtgccca gaagccgcca cgcctgtgcc gccaggggcta tgcgtgcccc
 240
 cactaccaca atagccggga caggcggcgc aaccccccggc ggttccagta caggtccacg
 300
 ccctgccccca gcgtgaagca cggggatgag tggggggaaac cctcacgctg cgatggcgcc
 360
 gacggctgcc agtattgccca ctcccgacg gagcagcagt tccatcccga gatctacaaa
 420
 tctacaaaa
 429

<210> 5970
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 5970
 Arg Pro Pro Val Cys Asp Val Arg Glu Leu Gln Ala Gln Glu Ala Leu
 1 5 10 15
 Gln Asn Gly Gln Leu Gly Gly Glu Gly Val Pro Asp Leu Gln Pro
 20 25 30
 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp
 35 40 45
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu
 50 55 60
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro
 65 70 75 80
 His Tyr His Asn Ser Arg Asp Arg Arg Arg Asn Pro Arg Arg Phe Gln
 85 90 95
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly
 100 105 110
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser
 115 120 125
 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys
 130 135 140

<210> 5971
 <211> 565
 <212> DNA
 <213> Homo sapiens

<400> 5971
 gcgcgcccat ttccggagagt tccctcagcc ccaggactct ggatgttagcc gttttcatgc
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 120
 catgtccctt aggtcagcta agcccacatc agtgtccaaa taggcaacat ccctatttta
 180
 tagatggtca tccccatttt agagatagct ccctttata tccccatttt acaggtgaag
 240
 gaatttgggc acagaagggtt aggtcacttc tgcaagatga ccagctgaac caaaatttca
 300

gggcttcaaa caccaaatgt gttccttgt cttccgttcc ccacttgctt cccagaggct
360
cagcaagtag cctctggcca ctgagcatcc tcccggccac tttgctccct gcctcctgat
420
cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc
480
cacacctacc ctcagccttg aagctgcagc aatggctgct tccagatgag cacaccctcg
540
gggtgcangc gtccagtgtc acgat
565

<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972
Met His Arg Ala Leu Ser Cys Pro Leu Gly Gln Leu Ser Pro His Gln
1 5 10 15
Cys Pro Asn Arg Gln His Pro Tyr Phe Ile Asp Gly His Pro His Phe
20 25 30
Arg Asp Ser Ser Leu Leu Tyr Pro His Phe Thr Gly Glu Gly Ile Glu
35 40 45
Ala Gln Lys Val Arg Ser Leu Leu Gln Asp Asp Gln Leu Asn Gln Asn
50 55 60
Phe Arg Ala Ser Asn Thr Lys Cys Val Pro Leu Ser Ser Val Ser His
65 70 75 80
Leu Leu Pro Arg Gly Ser Ala Ser Ser Leu Trp Pro Leu Ser Ile Leu
85 90 95
Pro Pro Thr Leu Leu Pro Ala Ser
100

<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973
ggccccaggg gcggcttcc caacactggt cgcaagtatt gttggataa cggctagaga
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cgccccagtga gtttagcatgg agggcagtgg gaccggaaaa agacgtggaa aagctgcgaa
120
aacgagcctt cgaatcatgg acgcgcgggc ccagctcctc ctccgagttc ctcatccgg
180
cccggtcactc acatccgggg ccctcactca catccggac cctcatccgg ggctctcacc
240
cacatccggg accctcatgc ctggcggag gagggggggc ctttcattcg ggaccctgc
300
actccgtcgc cgaaagtgcc accgagaagc gccggcctcg gggctgtcta cagcggcccg
360
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420
ccccctccccct cggtgagtac ccggaagccg ttttggggtc gcagcgggggt ggcagcttgt
480

tttgccttca cgggagtaga aggaggcggc gtccgccgcg gcccacggta gttcgcttcc
540
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600
tcacctcgcg gaccgagggc ccgcccgtcag gagccggcga ccgtccccctg gtgcgagctg
660
gtctgtatgt cctcactggt cctttggga ctttgcccttgc gcctcggtgc tctcaggatt
720
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780
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797

<210> 5974
<211> 107
<212> PRT
<213> Homo sapiens

<400> 5974
Met Glu Gly Ser Gly Thr Gly Lys Arg Arg Gly Lys Ala Ala Lys Thr
1 5 10 15
Ser Leu Arg Ile Met Asp Ala Arg Ala Gln Leu Leu Leu Arg Val Pro
20 25 30
His Pro Gly Pro Ser Leu Thr Ser Gly Ala Leu Thr His Ile Arg Asp
35 40 45
Pro His Pro Gly Leu Ser Pro Thr Ser Gly Thr Leu Met Pro Gly Arg
50 55 60
Arg Arg Gly Gly Pro Ser Phe Gly Thr Pro Ala Leu Arg Arg Arg Lys
65 70 75 80
Cys His Arg Glu Ala Pro Ala Ser Gly Leu Ser Thr Ala Ala Arg Glu
85 90 95
Arg Leu Trp Trp Pro Arg Ala Arg Val Cys Arg
100 105

<210> 5975
<211> 2175
<212> DNA
<213> Homo sapiens

<400> 5975
nntcaggta ccacatacta ttatgttggg tttgcatttt tgatgtatgcg tcgttaccag
60
gatgccatcc gggtcttcgc caacatcctc ctctacatcc agaggaccaa gagcatgttc
120
cagaggccca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgcgt
180
ctggccattt ccctcacatg gtacccatg cgtatcgatg agagcattca cctccagctg
240
cgggagaaat atggggacaa gatgttgcgc atgtcttatac ccgctgtatga ttatgagtct
300
gaggcggctt atgaccctta cgcttatccc agcgactatg atatgcacac aggagatcca
360
aagcaggacc ttgcttatga acgtcagttt gaacagcaaa cctatcaggt gatccctgag
420

gtgatcaaaa acttcatcca gtatttccac aaaactgtct cagatttgat tgaccagaaa
480
gtgtatgagc tacaggccag tcgtgtctcc agtcatgtca ttgaccagaa ggtgtatgag
540
atccaggaca tctatgagaa cagctggacc aagctgactg aaagattctt caagaataca
600
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660
ttatacaaag aattatacta caggcacata tatgccaaag tcagtggggg accttcctt
720
gagcagaggt ttgaatccta ttacaactac tgcaatctct tcaactacat tcttaatgcc
780
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840
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900
gagattgact ttcttcgttc caatcccaa atctggaaatg ttcatagtgt cctcaatgtc
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cttcattccc tggtagacaa atccaacatc aaccgacagt tggaggtata cacaagcgga
1020
ggtacctg agagtgtggc tggggagtat gggccggact ccctctacaa aatgcttgg
1080
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1140
atcaagggtgc tggagaacat cgaactgaac aagaagagta tgtattcccg tggccagag
1200
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1260
gatgccatcc gggcttcgc caacatcctc ctctacatcc agaggaccaa gagcatgtt
1320
cagaggacca cgtacaagta tgagatgatt aacaaggcaga atgagcagat gcatgcgt
1380
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1440
cgggagaaat atggggacaa gatgttgcgc atgcagaaag gtgaccacaa agtctatgaa
1500
gaactttca gttactcctg ccccaagttc ctgtcgctg tagtgccaa ctatgataat
1560
gtgcacccca actaccacaa agagcccttc ctgcagcagc tgaagggttt ttctgtgaa
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1680
cctgtggcca agctggctgg cttccctggac ctcacagagc aggagttccg gatccagctt
1740
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1800
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1860
gcggacacca aggtcgccag gcgttatggg gatttttca tccgtcagat ccacaaattt
1920
gaggagctt aatcgaaccctt gaagaagatg ggacagagac cttgtatgata ttccacacaca
1980
ttcaggaaacc tggatgttgc tattataggc aggaagtgtt tttgctaccg tgaaaccc
2040

accttagatca gccatcagcc tgtcaactca gttaacaagt taaggaccga agtgtttcaa
 2100
 gtggatctca gtaaaggatc tttggagcca gaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa
 2160
 aaaaaaaaaaaa aaaaaa
 2175

<210> 5976
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
 Met Ser Tyr Pro Ala Asp Asp Tyr Glu Ser Glu Ala Ala Tyr Asp Pro
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 Tyr Ala Tyr Pro Ser Asp Tyr Asp Met His Thr Gly Asp Pro Lys Gln
 20 25 30
 Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile
 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
 85 90 95
 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
 115 120 125
 Leu Ile Leu Tyr Lys Glu Leu Tyr Tyr Arg His Ile Tyr Ala Lys Val
 130 135 140
 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr
 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
 165 170 175
 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
 225 230 235 240
 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
 290 295 300
 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly
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Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg		
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Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser		
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Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His		
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Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser		
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Asp Glu Val Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu		
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Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp		
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Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu		
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Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile		
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His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile		
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<211> 2320

<212> DNA

<213> Homo sapiens

<400> 5977

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<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

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35 40 45
Thr Thr Trp Arg Xaa Val Phe Thr Lys Asn Thr Lys Ile Ser Trp Ala
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Trp Trp Tyr Thr Pro Val Ile Pro Ala Thr Gln Glu Ala
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<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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 <212> PRT
 <213> Homo sapiens

<400> 5980
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 Ser Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr Gln Asn
 35 40 45
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
 50 55 60
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
 65 70 75 80
 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
 85 90 95
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
 100 105 110
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
 115 120 125
 Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg
 130 135 140
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 145 150 155 160
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<210> 5981
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 <212> DNA
 <213> Homo sapiens

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<212> PRT
<213> Homo sapiens

<400> 5982
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35 40 45
Asn Leu His Thr Leu Gly Gln Leu Lys Leu Ser Arg Arg Cys Arg Glu
50 55 60
Pro Arg Leu Gly Arg Ala Gly Gln Gln Arg Leu His Pro Arg Thr Arg
65 70 75 80
Pro Arg Arg Gly Ser Gly Pro Leu Val Arg Ala Gly Arg Arg Gly Trp
85 90 95
Gly Lys

<210> 5983
<211> 790
<212> DNA
<213> Homo sapiens

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<210> 5984
 <211> 186
 <212> PRT
 <213> Homo sapiens

<400> 5984
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 Glu Val Asn Arg Gln Cys Pro Gly Glu Lys Glu Pro Val Ser Asp Leu
 35 40 45
 Gln Leu Gly Leu Asp Ala Val Glu Pro Thr Ala Leu His Lys Thr Leu
 50 55 60
 Glu Thr Pro Ala His Asp Arg Ala Glu Pro Asn Ser Gln Leu Asp Ser
 65 70 75 80
 Thr His Ser Gly Arg Gly Thr Met Tyr Ser Ser Trp Val Lys Ser Pro
 85 90 95
 Asp Arg Thr Gly Val Asn Phe Ser Val Asn Ser Asn Leu Arg Asp Leu
 100 105 110
 Thr Pro Ser His Gln Leu Glu Val Gly Gly Phe Arg Ile Ser Glu
 115 120 125
 Ser Lys Cys Leu Met Gln Asp Asp Thr Arg Gly Met Phe Met Glu Thr
 130 135 140
 Thr Val Phe Cys Thr Ser Glu Asp Gly Leu Val Ser Gly Phe Gly Arg
 145 150 155 160
 Thr Val Asn Asp Asn Leu Ile Asp Gly Asn Cys Thr Pro Gln Asn Pro
 165 170 175
 Pro Gln Lys Lys Lys Val Ser Leu Leu Glu

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185

<210> 5985
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<212> DNA
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<210> 5986
<211> 165
<212> PRT
<213> Homo sapiens

<400> 5986
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20 25 30
Asp Leu Leu Gln Asn Pro Tyr Phe Ser Lys Leu Leu Leu Asn Leu Ser
35 40 45
Gln His Val Asp Glu Ser Gly Leu Ser Leu Thr Leu Ala Lys Glu Gln
50 55 60
Ala Gln Ala Trp Lys Glu Val Arg Leu His Lys Thr Thr Trp Leu Arg
65 70 75 80
Ser Glu Ile Leu His Arg Val Ile Gln Glu Leu Leu Val Asp Tyr Tyr
85 90 95
Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His

100 105 110
Glu Thr Leu Glu Gln Arg Leu Leu Val Thr Glu Leu Met Arg Leu Leu
115 120 125
Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys
130 135 140
Ala Asp Leu Leu Glu Leu Met Pro Leu Ser Glu Val Gly Gly Glu Ile
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Leu Glu Pro Asn Lys
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<210> 5987

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5987

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<210> 5988

<211> 216

<212> PRT

<213> Homo sapiens

<400> 5988
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Thr Pro Ser Glu Arg Gly Met Thr Tyr Asp Ala Leu His Val Phe Asp
35 40 45
Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His
50 55 60
Ser Leu Gly Thr Gly Val Ala Thr Ile Trp Cys Gly Ala Ser Val Ser
65 70 75 80
Glu Thr Pro Pro Asp Ala Leu Ile Leu Glu Ser Pro Phe Thr Asn Ile
85 90 95
Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe
100 105 110
Pro Gly Phe Asp Trp Phe Phe Leu Asp Pro Ile Thr Ser Ser Gly Ile
115 120 125
Lys Phe Ala Asn Asp Glu Asn Val Lys His Ile Ser Cys Pro Leu Leu
130 135 140
Ile Leu His Ala Glu Asp Asp Pro Val Val Pro Phe Gln Leu Gly Arg
145 150 155 160
Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys
165 170 175
Val Gln Phe Val Pro Phe His Ser Asp Leu Gly Tyr Arg His Lys Tyr
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Lys Ser Glu Pro Glu His Gln His
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<210> 5989

<211> 1583

<212> DNA

<213> Homo sapiens

<400> 5989

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<210> 5990
<211> 260
<212> PRT
<213> Homo sapiens

<400> 5990
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35 40 45
Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val
50 55 60
Gly Val Ser Met Ile Gly Glu Gly Val Leu Arg Leu Leu Glu His Gly
65 70 75 80
Glu Glu Tyr Val Phe Thr Leu Pro Ser Ala Tyr Ala Arg Ser Ile Leu
85 90 95
Thr Ile Pro Trp Val Glu Leu Gly Gly Lys Val Ser Ile Asn Cys Ala
100 105 110
Lys Thr Gly Tyr Ser Ala Thr Val Ile Phe His Thr Lys Pro Phe Tyr
115 120 125
Gly Gly Lys Val His Arg Val Thr Ala Glu Val Lys His Asn Pro Thr
130 135 140
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<211> 1528

<212> DNA

<213> Homo sapiens

<400> 5995

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<212> PRT
<213> Homo sapiens

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Arg Gln Phe Val Pro Leu Ala Ser Gly Gln Ala Gln Val Val Leu Ser
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Trp Trp Asp Ile Glu Met Asp Pro Glu Gly Lys Ile Lys Cys Thr Met
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<212> DNA
<213> Homo sapiens

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<211> 72
<212> PRT
<213> Homo sapiens

<400> 5998
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<212> DNA
<213> Homo sapiens

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2759

<210> 6000
<211> 757
<212> PRT
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<400> 6000
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35 40 45
Ala Arg Lys Lys Ala Ser Val Glu Ala Arg Leu Lys Ala Ala Ile Gln
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Ser Gln Leu Asp Gly Val Arg Thr Gly Leu Ser Gln Leu His Asn Ala
65 70 75 80
Leu Asn Asp Val Lys Asp Ile Gln Gln Ser Leu Ala Asp Val Ser Lys
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Asp Trp Arg Gln Ser Ile Asn Thr Ile Glu Ser Leu Lys Asp Val Lys
100 105 110
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115 120 125
Lys Asn Ile Phe Ser Val Pro Glu Ile Val Arg Glu Thr Gln Asp Leu
130 135 140
Ile Glu Gln Gly Ala Leu Leu Gln Ala His Arg Lys Leu Met Asp Leu
145 150 155 160
Glu Cys Ser Arg Asp Gly Leu Met Tyr Glu Gln Tyr Arg Met Asp Ser
165 170 175
Gly Asn Thr Arg Asp Met Thr Leu Ile His Gly Tyr Phe Gly Ser Thr
180 185 190
Gln Gly Leu Ser Asp Glu Leu Ala Lys Gln Leu Trp Met Val Leu Gln
195 200 205
Arg Ser Leu Val Thr Val Arg Arg Asp Pro Thr Leu Leu Val Ser Val
210 215 220
Val Arg Ile Ile Glu Arg Glu Lys Ile Asp Arg Arg Ile Leu Asp
225 230 235 240
Arg Lys Lys Gln Thr Gly Phe Val Pro Pro Gly Arg Pro Lys Asn Trp
245 250 255
Lys Glu Lys Met Phe Thr Ile Leu Glu Arg Thr Val Thr Arg Ile
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Glu Gly Thr Gln Ala Asp Thr Arg Glu Ser Asp Lys Met Trp Leu Val

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Arg His Leu Glu Ile Ile Arg	Lys Tyr Val Leu Asp Asp	Leu Ile Val
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Ala Lys Asn Leu Met Val Gln Cys Phe Pro Pro	His Tyr Glu Ile Phe	
305	310	315
Lys Asn Leu Leu Asn Met Tyr His Gln Ala Leu Ser Thr Arg Met Gln		320
325	330	335
Asp Leu Ala Ser Glu Asp Leu Glu Ala Asn Glu Ile Val Ser	Leu Leu	
340	345	350
Thr Trp Val Leu Asn Thr Tyr Thr Ser Thr Glu Met Met Arg Asn Val		
355	360	365
Glu Leu Ala Pro Glu Val Asp Val Gly Thr Leu Glu Pro Leu Leu Ser		
370	375	380
Pro His Val Val Ser Glu Leu Leu Asp Thr Tyr Met Ser Thr Leu Thr		
385	390	395
Ser Asn Ile Ile Ala Trp Leu Arg Lys Ala Leu Glu Thr Asp Lys Lys		400
405	410	415
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435	440	445
Gln Val Ala Ala Gln Ile Ser Glu Asp Leu Lys Thr Lys Val Leu Val		
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Leu Cys Leu Gln Gln Met Asn Ser Phe Leu Ser Arg Tyr Lys Asp Glu		
465	470	475
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485	490	495
Cys Tyr Val Gln Tyr Met Ile Ala Ile Ile Asn Asn Cys Gln Thr Phe		
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Glu Glu Gly Val Ser Pro Ser Gln Pro Ser Met Asp Gly Ile Leu Asp		
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Lys Met Val Arg Glu Ala Glu Gln Arg Arg Phe Leu Phe Arg Lys Leu		
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Ala Val Ala Glu Val Ile Lys Leu Thr Asp Pro Ser Leu Leu Tyr Leu		
675	680	685
Glu Val Ser Thr Leu Val Ser Lys Tyr Pro Asp Ile Arg Asp Asp His		
690	695	700
Ile Gly Ala Leu Leu Ala Val Arg Gly Asp Ala Ser Arg Asp Met Lys		

705 710 715 720
Gln Thr Ile Met Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro
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<210> 6001
<211> 2490
<212> DNA
<213> Homo sapiens

<400> 6001
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<210> 6002

<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

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Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro		
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Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys		
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Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe		
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Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val		
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145	150	155
Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr		
165	170	175
Met Met Val Ile Ile Ala Ile Gly Ala Gly Ile Ile Leu Gly Tyr		
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Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val		
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Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr		
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420	
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2100

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 2700
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 2820
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 2940
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 3000
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 3107

<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004
 Met Val Thr Thr Pro Ser Trp Trp Ala Val Trp Pro Trp Val Ser Gly
 1 5 10 15
 Gly Ala Thr Gly Cys Thr Glu Leu Gly Ser Trp Glu Thr Val Pro Arg
 20 25 30
 Pro Ala Val Pro Lys Val Ala Pro Gly Thr Met Pro Thr Arg Pro Glu
 35 40 45
 Gly Gly Thr Glu Thr Thr Ser Met Leu Xaa Val Pro Gly Val Thr Gln
 50 55 60
 Ser Pro Arg Gly Glu Arg Gly Ser Gly Pro His Ala Val Gln Gly Val
 65 70 75 80
 Ala Leu Pro Xaa Arg Gly Ser Pro Arg Gly Pro Gly Pro Arg Ala Pro
 85 90 95
 Gly Arg Gly Arg Asp Cys Gly Gly Asn Gly Pro Ala Glu Ala Pro Ala

100	105	110
Pro Leu Ser Ser Ala Phe Gln Pro Pro Ala Leu Gly Pro Ala Pro Lys .		
115	120	125
Glu Gly Gly Pro Ser Ser Leu Asn Lys Arg Cys Thr		
130	135	140

<210> 6005
<211> 1735
<212> DNA
<213> Homo sapiens

<400> 6005
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120
tccggcctcc cgggcgctga cggcctcaag ggggagaagg gggagtcggc atctcagcct
180
acaggagagc ctggctcagc tcatagttag ccagggcccc ctggccccc tggccccc
240
ggcccgatgg gcctccaggg aatccagggt cccaagggt tggatggagc aaaggagag
300
aagggtgcgt cgggtgagag aggctccagc ggctgcctg gcccagttgg cccaccggc
360
cttattggc tgccaggaac caaaggagag aagggcagac cggggagcc aggactagat
420
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480
cgagggttcc cggccggaa aggagtgaag ggccagaagg gcgagccgg accaccaggc
540
ctggaccagc cgtgtccctg gggcccgac gggctgcctg tgccctggctg ctggcataag
600
tgacccacag gcccagctca cacctgtaca gatccgtgtg gacatttta attttgtaa
660
aaacaaaaaca gtaatatatt gatttttt catggaatgc gctacctgtg gcctttaac
720
attcaagagt atgcccaccc agccccaaag ccaccggcat gtgaagctgc cgaaagtgg
780
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840
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900
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960
cccgcaaaac tctggagtcc ctgggacaca ccctatccaa gaagacccag gggtggaaaca
1020
scggctgcgt ttgctccctgg cctcatcagc ctccaaactc aaccacaacc agctgcctct
1080
gcagttggac aagacttggc ccccgacaa gactcgccca gcacttgcgg ctggcccg
1140
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1200
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1260

atcgctgtga tgtggaccca gctccaggga gcagagtgtc ggggatggag gggcccagcc
1320 tggactgact gctacttcct gtctctgttt ccattatcac ccagagaggg acaagatagg
1380 acatggcctg gaccagggag gcaggcctcc cactcagagt ctgggtctca ctggccccaa
1440 gtctccacc cagaactctg gccaaaaatg gctctctagg tgggtgtgc aggcaaagca
1500 aagctcaggg ctggtccca gctggcctga gcagggggcc tgccaccaga cccacccacg
1560 ctctgacgag aggctttcc acctccagca agtgttccca gcaaccagct ccatcctggc
1620 tgcttgccct ccattccgt gtagatggag atcaactgtgt gtaataaacc acaagtgcgt
1680 gaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaag
1735

<210> 6006

<211> 200

<212> PRT

<213> Homo sapiens

<400> 6006
Glu Leu Gly Leu Pro Gly Ala Pro Gly Ile Asp Gly Glu Lys Gly Pro
1 5 10 15
Lys Gly Gln Lys Gly Asp Pro Gly Glu Pro Gly Pro Ala Gly Leu Lys
20 25 30
Gly Glu Ala Gly Glu Met Gly Leu Ser Gly Leu Pro Gly Ala Asp Gly
35 40 45
Leu Lys Gly Glu Lys Gly Glu Ser Ala Ser Gln Pro Thr Gly Glu Pro
50 55 60
Gly Ser Ala His Ser Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro
65 70 75 80
Gly Pro Met Gly Leu Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly
85 90 95
Ala Lys Gly Glu Lys Gly Ala Ser Gly Glu Arg Gly Ser Ser Gly Leu
100 105 110
Pro Gly Pro Val Gly Pro Pro Gly Leu Ile Gly Leu Pro Gly Thr Lys
115 120 125
Gly Glu Lys Gly Arg Pro Gly Glu Pro Gly Leu Asp Gly Phe Pro Gly
130 135 140
Pro Arg Gly Glu Lys Gly Asp Arg Ser Glu Arg Gly Glu Lys Gly Glu
145 150 155 160
Arg Gly Val Pro Gly Arg Lys Gly Val Lys Gly Gln Lys Gly Glu Pro
165 170 175
Gly Pro Pro Gly Leu Asp Gln Pro Cys Pro Val Gly Pro Asp Gly Leu
180 185 190
Pro Val Pro Gly Cys Trp His Lys
195 200

<210> 6007

<211> 693

<212> DNA

<213> Homo sapiens

<400> 6007
cagccctta agccatctcc ctccagtgc aacctctatt cagccttac cagtgtatgg
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gccatccatg taccaaggct ttctgctcca ggtcaaggaa agatggtgaa aaaagtctgt
120
ccttgcacc accgtctgttag aaccagcagc acaaaactg ttggggcaac agtgaacagc
180
caagccgccc aagctcagcc tcctgccccatg acgtccagca ggaagggcac attcacagat
240
gacttgcaca agtttgtaga caattggccc cgagatgcca tgaatctctc aggccaggaga
300
ggaagcaaag ggcacatgaa ttatgagggc cctggaatgg caaggaagtt ctctgcacct
360
ggcactgt gcacatccat gacctcgaaac ctgggtggct ctgccccat ctctgcagca
420
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480
ccagctaccc cattggcgc tcaatggagt gggacgggtg gcccagcacc acagccactt
540
ggccagttcc aacctgtggg aactgcctcc ttgcagaatt tcaacatcag caatttgcag
600
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660
ctgaatagat ctggggcag gagatggaat gct
693

<210> 6008

<211> 214

<212> PRT

<213> Homo sapiens

<400> 6008

Gln	Pro	Leu	Lys	Pro	Ser	Pro	Ser	Ser	Asp	Asn	Leu	Tyr	Ser	Ala	Phe
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Thr	Ser	Asp	Gly	Ala	Ile	Ser	Val	Pro	Ser	Leu	Ser	Ala	Pro	Gly	Gln
				20			25					30			
Gly	Lys	Met	Val	Lys	Lys	Val	Cys	Pro	Cys	Asn	Gln	Leu	Cys	Arg	Thr
				35			40					45			
Ser	Ser	Thr	Asn	Thr	Val	Gly	Ala	Thr	Val	Asn	Ser	Gln	Ala	Ala	Gln
				50			55					60			
Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
				65			70			75			80		
Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
				85			90					95			
Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
				100			105					110			
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
				115			120					125			
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
				130			135					140			
Leu	Gly	His	Phe	Thr	Lys	Ser	Met	Cys	Pro	Pro	Gln	Gln	Tyr	Gly	Phe
				145			150				155			160	
Pro	Ala	Thr	Pro	Phe	Gly	Ala	Gln	Trp	Ser	Gly	Thr	Gly	Gly	Pro	Ala

165 170 175
Pro Gln Pro Leu Gly Gln Phe Gln Pro Val Gly Thr Ala Ser Leu Gln
180 185 190
Asn Phe Asn Ile Ser Asn Leu Gln Lys Ser Ile Ser Asn Pro Pro Gly
195 200 205
Ser Asn Leu Arg Thr Thr
210

<210> 6009

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 6009
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120
gtggtggtgt cgggtggagg cctggtgggc gctgccatgg cctgtgcctt gggatatgat
180
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240
aaatttgtcag aaacttacag caacagggtc agctccattt cccctggctc tgcaacgctt
300
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360
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420
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480
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540
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 aaaaaaaaaa
 1570

<210> 6010
 <211> 468
 <212> PRT
 <213> Homo sapiens

<400> 6010
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 His Ser Gly Pro Leu Ala Val Leu Ala Gln Val Val Arg Arg Ser Thr
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 Asp Thr Val Tyr Asp Val Val Ser Gly Gly Gly Leu Val Gly Ala
 35 40 45
 Ala Met Ala Cys Ala Leu Gly Tyr Asp Ile His Phe His Asp Lys Lys
 50 55 60
 Ile Leu Leu Leu Glu Ala Gly Pro Lys Lys Val Leu Glu Lys Leu Ser
 65 70 75 80
 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr
 85 90 95
 Leu Leu Ser Ser Phe Gly Ala Trp Asp His Ile Cys Asn Met Arg Tyr
 100 105 110
 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu
 115 120 125
 Ile Met Phe Asp Lys Asp Asn Leu Asp Asp Met Gly Tyr Ile Val Glu
 130 135 140
 Asn Asp Val Ile Met His Ala Leu Thr Lys Gln Leu Glu Ala Val Ser
 145 150 155 160
 Asp Arg Val Thr Val Leu Tyr Arg Ser Lys Ala Ile Arg Tyr Thr Trp
 165 170 175
 Pro Cys Pro Phe Pro Met Ala Asp Ser Ser Pro Trp Val His Ile Thr
 180 185 190
 Leu Gly Asp Gly Ser Thr Phe Gln Thr Lys Leu Leu Ile Gly Ala Asp
 195 200 205
 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser
 210 215 220
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu
 225 230 235 240
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro
 245 250 255
 Ile Ala Leu Leu Pro Leu Ser Asp Thr Leu Ser Ser Leu Val Trp Ser

	260	265	270
Thr Ser His Glu His Ala Ala Glu Leu Val Ser Met Asp Glu Glu Lys			
275	280	285	
Phe Val Asp Ala Val Asn Ser Ala Phe Trp Ser Asp Ala Asp His Thr			
290	295	300	
Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu			
305	310	315	320
Leu Lys Pro Thr Lys Val Ser Ala Arg Gln Leu Pro Pro Ser Val Pro			
325	330	335	
Trp Val Asp Ala Lys Ser Arg Val Leu Phe Pro Leu Gly Leu Gly His			
340	345	350	
Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala			
355	360	365	
His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly			
370	375	380	
Asp Ile Ser Ser Leu Ala His His Leu Ser Thr Ala Ala Phe Asn Gly			
385	390	395	400
Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg			
405	410	415	
Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg			
420	425	430	
Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly			
435	440	445	
Leu Gln Ala Thr Asn Ala Val Ser Pro Leu Lys Glu Gln Ile Met Ala			
450	455	460	
Phe Ala Ser Lys			
465			

<210> 6011
<211> 1331
<212> DNA
<213> Homo sapiens

<400> 6011
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120
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180
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240
ctcaagtgcg cgcccagggg caagaacggc ttcacccctc tgcacatggc tgtggacaag
300
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gccctggata agaacaagat cccttacaag ggcttcattcc cgaaagatct agaggcattc
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 780
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 1020
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 1080
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 1140
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 1320
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 1331

<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

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Val	Phe	Ser	Lys	Gly	Val	Arg	Glu	Val	Glu	Arg	Val	Leu	Gln	Leu	Pro
	20				25				30						
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
	35				40				45						
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Val	Glu	Cys	Thr	Pro	Ser	Gln	
	50				55				60						
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
	65				70			75					80		
Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
	85				90				95						
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
	100				105				110						
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
	115				120				125						
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
	130				135				140						
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
	145				150			155					160		
Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

165	170	175
Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys Leu		
180	185	190
Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe Ile		
195	200	205
Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His		
210	215	

<210> 6013

<211> 2204

<212> DNA

<213> Homo sapiens

<400> 6013

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120
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<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

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Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
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Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	Asn	Pro	Pro	
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Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala	
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Gln	Ala														
															85

Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln							

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Pro Gly Ala Ala Pro Gln Gly Gly Gly Gly Asp Ser Asn Pro Asn
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Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
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Glu His Leu Ala Ser Ser
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<210> 6015

<211> 612

<212> DNA

<213> Homo sapiens

<400> 6015

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<211> 99

<212> PRT

<213> Homo sapiens

<400> 6016

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Arg Cys Lys Leu Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
35 40 45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

50 55 60
Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala
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Phe Tyr Asn Ile Phe Leu Lys Lys Ser His Ser Phe Gln Ser Leu Leu
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Gln Tyr Ile

<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

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 <212> PRT
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 35 40 45
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln
 50 55 60
 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp
 65 70 75 80
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly
 85 90 95
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser
 100 105 110
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp
 115 120 125
 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

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Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu		
180	185	190
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp		
195	200	205
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly		
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Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly		
225	230	235
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Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile		
245	250	255
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro		
260	265	270
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe		
275	280	285
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu		
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Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe		
305	310	315
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Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met		
325	330	335
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val		
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Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly		
355	360	365
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser		
370	375	380
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp		
385	390	395
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Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe		
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Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg		
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Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val		
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Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val		
450	455	460
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro		
465	470	475
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Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala		
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Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys		
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<212> DNA
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<211> 387
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35 40 45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
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His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
65 70 75 80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
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Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
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Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
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Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
130 135 140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
145 150 155 160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
165 170 175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
180 185 190
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195 200 205
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
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225 230 235 240
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245 250 255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
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<212> PRT
<213> Homo sapiens

<400> 6022

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Val Lys Thr Arg Met Gln Asn Gln Arg Ser Thr Gly Ser Phe Val Gly		
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Glu Leu Met Tyr Lys Asn Ser Phe Asp Cys Phe Lys Lys Val Leu Arg		
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Tyr Glu Gly Phe Phe Gly Leu Tyr Arg Gly Leu Leu Pro Gln Leu Leu		
420	425	430
Gly Val Ala Pro Glu Lys Ala Ile Lys Leu Thr Val Asn Asp Phe Val		
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Arg Asp Lys Phe Met His Lys Asp Gly Ser Val Pro Leu Ala Ala Glu		
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Ile Leu Ala Gly Gly Cys Ala Gly Gly Ser Gln Val Ile Phe Thr Asn		
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Lys Ser Arg Ile Asn Leu Pro Ala Pro Asn Pro Asp His Val Gly Gly		
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Tyr Lys Leu Ala Val Ala Thr Phe Ala Gly Ile Glu Asn Lys Phe Gly		
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<211> 1014

<212> DNA

<213> Homo sapiens

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<211> 100

<212> PRT

<213> Homo sapiens

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35 40 45
Pro Ile Lys Ile Ser Ser Thr Pro Pro Ser Gly Ser Arg Leu Asp Pro
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Gln Ile Ala Ser Ser Ala Phe Pro Gly Leu Gly Ser Leu Gly Gln
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<211> 5905

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<211> 496
<212> PRT
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Pro	Val	Ser	Ser
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Ile	Pro	Ser	Arg
Ala	Gly	Ala	Asn
Trp	Ser	Val	Asn
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Lys	Ser	Pro	Ser
Gln	Asn	Arg	Lys
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Thr	Ser	Asp	Asn
Gly	Lys	Asp	Gly
Leu	Ala	Tyr	Ser
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Gly	Ala	Gly	Ile
Ile	Glu	Lys	Val
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Glu	Asp	Arg	Arg
Leu	Gln	Pro	Ser
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Ser	Thr	Lys	Arg
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Val	Ser	Pro	Tyr
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Leu	Arg	Ser	Pro
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Lys	Val	Leu	Asp
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Val	Asp	Trp	Ser
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Val	Tyr	Leu	Trp
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Gly	Leu	Leu	Ala
370	375	380	
Trp	Asn	Thr	Leu
385	390	395	400
Gln	Val	Cys	Asn
405	410	415	
Thr	His	Gly	Tyr
420	425	430	
Leu	Thr	Gln	Val

435	440	445
Leu Ala Met Ser Pro Asp Gly Glu Ala Ile Val Thr Gly Ala Gly Asp		
450	455	460
Glu Thr Leu Arg Phe Trp Asn Val Phe Ser Lys Thr Arg Ser Thr Lys		
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485	490	495

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<211> 305

<212> DNA

<213> Homo sapiens

<400> 6027

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<210> 6028

<211> 75

<212> PRT

<213> Homo sapiens

<400> 6028

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Glu Val Phe Arg Thr Arg Ile Glu Ala Ala Thr Gln Met Glu Ser Gly			
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Gly Ala Pro Val Val Gly Ser Leu Met Pro Gly			
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<210> 6029

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 6029

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 120

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240 tcatcttgcc tctccggact gctccctctg actggtaag ccacactctg tgaagctgtc
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600 ctgtccagaa aagattggtg tgggttgacc tggcctatgc gggcagctc agtttgaagc
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1020 acctagggtgg atggaaagtg cctgtgtgg tgtgaagcca cttgggtgg gggctcgga
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<211> 99
<212> PRT
<213> Homo sapiens

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His Thr Gly Thr Ser His Pro Pro Arg Phe Gly Leu Ala Glu Thr Ser

35 40 45
Phe His Ser Ser Lys Ala Ser Met Val Phe Ala Ser Pro Gln Glu Val
50 55 60
Ser Gln Glu Glu Phe Leu Asp Gly Val Leu Met Ser Ala Glu Asn Ser
65 70 75 80
Ala Gln Ser Trp Arg Leu Gln Thr Gln Leu Ser Trp Gly Arg Ala Val
85 90 95
Ala Pro Ser

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<212> DNA
<213> Homo sapiens

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180
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720
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1080
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1140

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<211> 321
<212> PRT
<213> Homo sapiens

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Asn Pro Tyr Thr Ile Leu Ser Cys Val Ala Lys Ser Thr Cys Ala Ile
 35 40 45
Asn Asn Thr Leu Ile Ala Phe Phe Ile Leu Thr Thr Ile Lys Gly Ser
 50 55 60
Ala Phe Leu Ser Ala Ile Phe Leu Ala Leu Ala Thr Tyr Gln Ser Leu
 65 70 75 80
Tyr Pro Leu Thr Leu Phe Val Pro Gly Leu Leu Tyr Leu Leu Gln Arg
 85 90 95
Gln Tyr Ile Pro Val Lys Met Lys Ser Lys Ala Phe Trp Ile Phe Ser
 100 105 110
Trp Glu Tyr Ala Met Met Tyr Val Gly Ser Leu Val Val Ile Ile Cys
 115 120 125
Leu Ser Phe Phe Leu Leu Ser Ser Trp Asp Phe Ile Pro Ala Val Tyr
 130 135 140
Gly Phe Ile Leu Ser Val Pro Asp Leu Thr Pro Asn Ile Gly Leu Phe
 145 150 155 160
Trp Tyr Phe Phe Ala Glu Met Phe Glu His Phe Ser Leu Phe Phe Val
 165 170 175
Cys Val Phe Gln Ile Asn Val Phe Phe Tyr Thr Ile Pro Leu Ala Ile
 180 185 190
Lys Leu Lys Glu His Pro Ile Phe Met Phe Ile Gln Ile Ala Val
 195 200 205
Ile Ala Ile Phe Lys Ser Tyr Pro Thr Val Gly Asp Val Ala Leu Tyr
 210 215 220
Met Ala Phe Phe Pro Val Trp Asn His Leu Tyr Arg Phe Leu Arg Asn
 225 230 235 240
Ile Phe Val Leu Thr Cys Ile Ile Val Cys Ser Leu Leu Phe Pro
 245 250 255
Val Leu Trp His Leu Trp Ile Tyr Ala Gly Ser Ala Asn Ser Asn Phe
 260 265 270
Phe Tyr Ala Ile Thr Leu Thr Phe Asn Val Gly Gln Ile Leu Leu Ile
 275 280 285
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<210> 6033
<211> 5157
<212> DNA
<213> Homo sapiens

<400> 6033
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<210> 6034

<211> 1096

<212> PRT

<213> Homo sapiens

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 20 25 30
 Arg Lys Asp Val Lys Gln Pro Glu Glu Leu Pro Pro Ile Thr Thr Thr
 35 40 45
 Thr Thr Ser Thr Thr Pro Ala Thr Asn Thr Cys Thr Ala Thr Val
 50 55 60
 Pro Pro Gln Pro Gln Tyr Ser Tyr His Asp Ile Asn Val Tyr Ser Leu
 65 70 75 80
 Ala Gly Leu Ala Pro His Ile Thr Leu Asn Pro Thr Ile Pro Leu Phe
 85 90 95
 Gln Ala His Pro Gln Leu Lys Gln Cys Val Arg Gln Ala Ile Glu Arg
 100 105 110
 Ala Val Gln Glu Leu Val His Pro Val Val Asp Arg Ser Ile Lys Ile
 115 120 125
 Ala Met Thr Thr Cys Glu Gln Ile Val Arg Lys Asp Phe Ala Leu Asp
 130 135 140
 Ser Glu Glu Ser Arg Met Arg Ile Ala Ala His His Met Met Arg Asn
 145 150 155 160
 Leu Thr Ala Gly Met Ala Met Ile Thr Cys Arg Glu Pro Leu Leu Met
 165 170 175
 Ser Ile Ser Thr Asn Leu Lys Asn Ser Phe Ala Ser Ala Leu Arg Thr
 180 185 190
 Ala Ser Pro Gln Gln Arg Glu Met Met Asp Gln Ala Ala Ala Gln Leu
 195 200 205
 Ala Gln Asp Asn Cys Glu Leu Ala Cys Cys Phe Ile Gln Lys Thr Ala
 210 215 220
 Val Glu Lys Ala Gly Pro Glu Met Asp Lys Arg Leu Ala Thr Glu Phe

225	230	235	240
Glu	Leu	Arg	Lys
His	Ala	Arg	Gln
Glu	Gly	Arg	Arg
Tyr	Cys	Tyr	Cys
Asp	Pro		
245	250	255	
Val	Val	Leu	Thr
Tyr	Gln	Ala	Glu
Arg	Met	Pro	Glu
260	265	270	
Lys	Val	Gly	Val
Gly	Asp	Pro	Lys
275	280	285	
Ala	Arg	Asn	Val
Pro	Gly	Phe	Leu
290	295	300	
Thr	Gly	Phe	Leu
Ala	Gln	Pro	Met
305	310	315	320
Val	Ala	Gln	Ile
Tyr	Asp	Lys	Cys
Ile	Thr	Glu	Leu
Glu	Gln	His	Leu
325	330	335	
His	Ala	Ile	Pro
Pro	Pro	Thr	Leu
Ala	Met	Asn	Pro
340	345	350	
Arg	Ser	Leu	Glu
Leu	Val	Val	Val
355	360	365	
Ile	Ala	Ala	Leu
Gly	Leu	Leu	Gln
370	375	380	
Ala	Thr	Ser	Gly
Asp	Ala	Asp	Ala
385	390	395	400
His	Leu	Leu	Val
Leu	Lys	Ala	Leu
Gln	Asp	Gly	Arg
405	410	415	
Pro	Trp	Cys	Asn
Gln	Ile	Thr	Arg
420	425	430	
Glu	Tyr	Lys	Tyr
Tyr	Asn	Val	Glu
435	440	445	
Leu	Val	Asn	Met
Gln	Gln	Tyr	Asp
450	455	460	
Asn	Gly	Leu	Asn
Tyr	Met	Ala	Val
465	470	475	480
Ile	Leu	Leu	Val
Asp	Glu	Arg	Ser
485	490	495	
Leu	Phe	His	Thr
Ile	Glu	Thr	Leu
500	505	510	
Gly	Asn	Ala	Pro
Glu	Gly	Leu	Pro
515	520	525	
Asn	Tyr	Glu	Ala
Ala	Met	Ile	Asp
530	535	540	
Met	His	Ser	Gly
Ile	Ser	Gln	Ala
545	550	555	560
Leu	Arg	Glu	Lys
Ala	Glu	Tyr	Leu
565	570	575	
His	Ser	Ala	Ala
Ala	Gly	Arg	Asp
580	585	590	
Val	Gly	Gln	Val
Glu	Leu	Leu	Glu
595	600	605	
Leu	Lys	Thr	Asp
Asp	Leu	Ile	Thr
610	615	620	
Met	Cys	Val	Glu
Ile	Ser	Tyr	Arg
625	630	635	640
Pro	Ala	Ala	Asn
Ala	Pro	Thr	Met
645	650	655	
Asp	Ala	Phe	Val
Arg	Leu	Ile	Ala
Leu	Leu	Val	Lys
			His
			Ser
			Gly
			Gl

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675 680 685
Ile Val Val Gly Val Leu Leu Gln Asp His Asp Val Arg Gln Ser Glu
690 695 700
Phe Gln Gln Leu Pro Tyr His Arg Ile Phe Ile Met Leu Leu Leu Glu
705 710 715 720
Leu Asn Ala Pro Glu His Val Leu Glu Thr Ile Asn Phe Gln Thr Leu
725 730 735
Thr Ala Phe Cys Asn Thr Phe His Ile Leu Arg Pro Thr Lys Ala Pro
740 745 750
Gly Phe Val Tyr Ala Trp Leu Glu Leu Ile Ser His Arg Ile Phe Ile
755 760 765
Ala Arg Met Leu Ala His Thr Pro Gln Gln Lys Gly Trp Pro Met Tyr
770 775 780
Ala Gln Leu Leu Ile Asp Leu Phe Lys Tyr Leu Ala Pro Phe Leu Arg
785 790 795 800
Asn Val Glu Leu Thr Lys Pro Met Gln Ile Leu Tyr Lys Gly Thr Leu
805 810 815
Arg Val Leu Leu Val Leu Leu His Asp Phe Pro Glu Phe Leu Cys Asp
820 825 830
Tyr His Tyr Gly Phe Cys Asp Val Ile Pro Pro Asn Cys Ile Gln Leu
835 840 845
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850 855 860
Pro Phe Thr Pro Asn Leu Lys Val Asp Met Leu Ser Glu Ile Asn Ile
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Gly Leu Leu Ile Thr Phe Ile Glu Leu Ile Lys Asn Pro Ala Phe Lys
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Phe Trp Asn His Glu Phe Val His Cys Ala Pro Glu Ile Glu Lys Leu
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1095

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<211> 320
<212> DNA
<213> Homo sapiens

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<210> 6036
<211> 102
<212> PRT
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Arg Gln Val Leu Gln Glu Pro Ser Arg Glu Pro Pro Gly Trp Leu Gly
35 40 45
Ala Trp Pro Arg Ser Gln Ser His Asn Ala His His Cys Pro Thr Met
50 55 60
Pro Phe Arg Met Glu Pro Leu Ile His Trp Ala His Ser His Gly Gln
65 70 75 80
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Gln Gln Gly Leu Cys Asp
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<212> DNA
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Tyr Val His Pro Asp Leu Leu Lys Asp Phe Cys Met Asn Pro Gln
 50 55 60
 Thr Val Leu Leu Leu Arg Val Ile Ala Ala Phe Cys Phe Leu Gly Ile
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 85 90 95
 Pro Ala Leu Lys Ile Thr Arg Arg Tyr Ala Phe Ala His Ile Leu Thr
 100 105 110
 Val Leu Gln Cys Ala Thr Val Ile Gly Phe Ser Tyr Trp Ala Ser Glu
 115 120 125
 Leu Ile Leu Ala Gln Gln Gln His Lys Lys Tyr His Gly Ser Gln
 130 135 140
 Val Tyr Val Thr Phe Ala Val Ser Phe Tyr Leu Val Ala Gly Ala Gly
 145 150 155 160
 Gly Ala Ser Ile Leu Ala Thr Ala Ala Asn Leu Leu Arg His Tyr Pro
 165 170 175
 Thr Glu Glu Glu Gln Ala Leu Glu Leu Leu Ser Glu Met Glu Glu
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 195 200 205
 Pro Pro Ala Tyr Thr Pro
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<210> 6039
<211> 1130
<212> DNA
<213> Homo sapiens

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<210> 6040
<211> 312
<212> PRT
<213> Homo sapiens

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Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu		
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Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val		
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Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala		
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Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Asp Ala Ala		
100	105	110
Gly Gln Val Phe Ser Trp Gly Gly Arg His Gly Gln Leu Gly His		
115	120	125
Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln		
130	135	140
Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys		
145	150	155
Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly		
165	170	175
Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val		
180	185	190
Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg		
195	200	205
Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln		
210	215	220
Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys		
225	230	235
Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu		
245	250	255
Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp		
260	265	270
Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys		
275	280	285
Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val		
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Tyr Ala Val Glu Lys Gly Lys Ser		
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<210> 6041
<211> 291
<212> DNA
<213> Homo sapiens

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291

<210> 6042
<211> 97
<212> PRT
<213> Homo sapiens

<400> 6042
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Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln
35 40 45
Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
50 55 60
Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
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Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
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<210> 6043
<211> 558
<212> DNA
<213> Homo sapiens

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<210> 6044
<211> 152
<212> PRT
<213> Homo sapiens

<400> 6044

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Lys	Ile	Ala	Pro	Leu	Glu	Ser	His	His	Arg	Pro	Lys	Arg	Pro	Asp	Asp
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Ser	Gln	Ile	Leu	Phe	Pro	Gln	Trp	Val	Val	Gln	Asp	Thr	Leu	Asn	Phe
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Cys	Met	Asn	Trp	Asp	Ile	Gln	Asn	Ser	Leu	Glu	Gln	Pro	Pro	Pro	Ser
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<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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1916

<210> 6046

<211> 457

<212> PRT

<213> Homo sapiens

<400> 6046

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   35         40         45
Arg Asp Leu Gln Glu Ile Cys Arg Lys Gln Gly Val Ala Val Tyr Ile
   50         55         60
Leu Leu Asp Gln Ala Leu Leu Ser Gln Phe Leu Asp Met Cys Met Asp

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Val Ile Leu Ser Gly Gln Val Val Glu His Phe Asp Leu Glu Phe Arg			
145	150	155	160
Ile Leu Tyr Ala Gln Ser Lys Pro Ile Ser Pro Lys Leu Leu Ser His			
165	170	175	
Phe Gln Ser Ser Asn Lys Phe Asp His Leu Thr Asn Arg Lys Pro Gln			
180	185	190	
Ser Lys Glu Leu Thr Leu Gly Asn Leu Leu Arg Met Arg Leu Ala Arg			
195	200	205	
Leu Ser Ser Thr Pro Arg Lys Ala Asp Leu Asp Pro Glu Met Pro Ala			
210	215	220	
Glu Gly Lys Ala Glu Arg Lys Pro His Asp Cys Glu Ser Ser Thr Val			
225	230	235	240
Ser Glu Glu Asp Tyr Phe Ser Ser His Arg Asp Glu Leu Gln Ser Arg			
245	250	255	
Lys Ala Ile Asp Ala Ala Thr Gln Thr Glu Pro Gly Glu Met Pro			
260	265	270	
Gly Leu Ser Val Ser Glu Val Gly Thr Gln Thr Ser Ile Thr Thr Ala			
275	280	285	
Cys Ala Gly Thr Gln Thr Ala Val Ile Thr Arg Ile Ala Ser Ser Gln			
290	295	300	
Thr Thr Ile Trp Ser Arg Ser Thr Thr Gln Thr Asp Met Asp Glu			
305	310	315	320
Asn Ile Leu Phe Pro Arg Gly Thr Gln Ser Thr Glu Gly Ser Pro Val			
325	330	335	
Ser Lys Met Ser Val Ser Arg Ser Ser Leu Lys Ser Ser Ser Ser			
340	345	350	
Val Ser Ser Gln Gly Ser Val Ala Ser Ser Thr Gly Ser Pro Ala Ser			
355	360	365	
Ile Arg Thr Thr Asp Phe His Asn Pro Gly Tyr Pro Lys Tyr Leu Gly			
370	375	380	
Thr Pro His Leu Glu Leu Tyr Leu Ser Asp Ser Leu Arg Asn Leu Asn			
385	390	395	400
Lys Glu Arg Gln Phe His Phe Ala Gly Ile Arg Ser Arg Leu Asn His			
405	410	415	
Met Leu Ala Met Leu Ser Arg Arg Thr Leu Phe Thr Glu Asn His Leu			
420	425	430	
Gly Leu His Ser Gly Asn Phe Ser Arg Val Asn Leu Leu Ala Val Arg			
435	440	445	
Asp Val Ala Leu Tyr Pro Ser Tyr Gln			
450	455		

<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

<400> 6047
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 gatggaaat gggggatctc atcgcttgcgt agtagaggag actttgggg gaaagtatg
 180
 gaggatgggg caagggatcc ggtgtccaac tctgtgtgtc cctgcagtc ccgtagccca
 240
 300
 gcagggaga tgaccttctg gcccctaagc aggccgaagg caggtggccg ccgccccgg
 360
 aatggtgcaa acagctcttc tccagttgtgg tcccccgtgtc gctgggggac ccagaggagg
 420
 480
 agccgggtgg gcggcagtc ctggacactca attgctttt gtccgacata tcggacactc
 540
 tcttacccat gactcagtcc gcgccttcgc ccctgcagct gcccctgag gatgcctacg
 600
 tcggcaatgc tgacatgatc cagccggacc tgacgccact gcagccaagc ctggatgact
 660
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 720
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 780
 tggggccaga ggtgcccccg gtttcctcgg ccatgaccca cctctctgga cacagccgtc
 773
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<210> 6048
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 6048
 Met Val Lys Arg Val Ser Glu Met Ser Asp Lys Lys Gln Leu Arg Ser
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 Arg Ser Cys Arg Pro Pro Gly Ser Ser Ser Gly Ser Pro Ser Ser Thr
 20 25 30
 Gly Thr Thr Leu Glu Lys Ser Cys Leu His His Cys Ser Gly Gly
 35 40 45
 His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Leu Leu
 50 55 60
 Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu
 65 70 75 80
 Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala
 85 90 95
 Met Arg Ser Pro Ile Ser His Gln Glu Leu Thr Arg Pro Leu Gly Lys
 100 105 110
 Glu Ala Ala Arg Arg Cys Gly His Thr Val Ala Leu Ser Ala Arg
 115 120 125
 Asp

<210> 6049
<211> 479
<212> DNA
<213> Homo sapiens

<400> 6049
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actgtatggta ataccagcac cactccgccc acctctgcc a agaagagaaa gttaaacagc
120
agcagcagta gcagcagtaa cagtagtaac gagagagaag actttgattc cacctttcc
180
tcctttcca tccttcctt acaaccagg gattcggcat ccccttcaac ctcgtccttc
240
tgcctggggg tttcagtggc tgcttccagc cacgtaccga tacagaagaa gctgcgttt
300
gaagacaccc tggagtttgtt agggtttgat gcgaagatgg ctgaggaatc ctcctcctcc
360
tcctcctcat cttcaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
420
atattaatct cttctgtggg ttcggtgcat catgcagacg ggctagccga atcttctac
479

<210> 6050
<211> 159
<212> PRT
<213> Homo sapiens

<400> 6050
Thr Gly Phe Ser Ser Pro Ser Pro Ser Ala Ala Ala Ala Ala Gln Glu
1 5 10 15
Val Arg Ser Ala Thr Asp Gly Asn Thr Ser Thr Thr Pro Pro Thr Ser
20 25 30
Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Asn Ser
35 40 45
Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Ser Thr
50 55 60
Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
65 70 75 80
Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
85 90 95
Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
100 105 110
Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
115 120 125
Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
130 135 140
Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
145 150 155

<210> 6051
<211> 2404
<212> DNA
<213> Homo sapiens

<400> 6051
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60 tttctccat cgggttatcc tgaaacagtt ctccagacag ggcataattt gtttccgaa
120 ttacagcagc gtcgatttaa tggctcagac ggaggggttt catggctcc tatggatgat
180 gaactcttg cacagccaca gttatgaaa ttattagatt cactccgaga gcaatatacc
240 cgctaccagg aagttttag gcaacgtac aagcgcacac agttagaaga gattcaacag
300 aaggtaatgc aggtggtaa ctggctagaa gggctggat cagaacaact aagagcccag
360 tggggcattg gagactccat tagggcctcc caggccctac agcagaaaca cgaagagatt
420 gagagccagc acagttaatg gtttgcagtg tatgtggAAC ttaatcagca aattgcagca
480 ctcttgaatg ctggcgatga ggaagatctt gtggactaa agtcactgca gcaacaactt
540 agtcatgttt ttatcgaca ggccagtcag ctggattta ggcaaaatct cttacaagca
600 gctctgaat ttcatggtgt tgcccaagat ttgtctcagc agttggatgg cttattaggg
660 atgttgtgcg tagatgtac accagctgtat ggacatcgat ttcagcaaactg
720 cttgaagaga agctgaaaag tggatgtg ggattgcaag gtttgcgtga aaaaggtcaa
780 ggtctctgg atcagatctc caatcaggca tccnntggc ctagggaaag gatgntaacc
840 attgaaaata aagaaaatgt ggaccacata caaggagtga tggagatata gcaatgtt
900 aaacaaaatgt gtgaagacat ggttagatgtg cgaaggtaa agatgctca gatggcag
960 ttgtttaat gtgaagaaga tgctgccaag gcagtagataat ggctaagtga acttctggat
1020 gctctgctta agactcacat cagattggc gatgtatgtc aagaaacgaa agtttgctg
1080 gaaaagcata gaaaatttgat tgatgtgca cagacactt atgactatgg caggcagtt
1140 ctacaggcca cagttgttt atgcaggatct ttgcgtgc cttctcggtc atctggat
1200 acacttcctc gactgaacag agtataaaaa caatttacaa tagcatctga agagagat
1260 catagattgg aatggctat tgcatttcac tcaaattgtg aaaagatttt gcaggactgt
1320 ccagaagagc ctgaagctat taatgtatgag gagcaatttg atgaaattga agcagttgg
1380 aaatcacttt tggatagatt aactgttcca gtatgttacat ctgatggAAC cgaacaatata
1440 tttggggatc caagtgcacat ggcttctact gcagaaaaaca tcagagacag gatgaaacta
1500 gttaatctca aaaggcagca gctgagacat cctgaaatgg tgaccacaga gagctaata
1560

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 1680
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 1740
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 1800
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 1860
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 1920
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 1980
 cctcaaaatt ttactttgtt attcttcaga attgattatt ttattgtgt caatacagag
 2040
 aaagcccttc agatcttga tatatcatag tcattaaaag acctttcct atttgtattt
 2100
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 2280
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 caac
 2404

<210> 6052
 <211> 518
 <212> PRT
 <213> Homo sapiens

<400> 6052
 Ile Asn Asn Gly Ser Asp Lys Gly Asn Gln Gln Glu Lys Glu Arg Ser
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 20 25 30
 Thr Gly His Glu Leu Leu Ser Glu Leu Gln Gln Arg Arg Phe Asn Gly
 35 40 45
 Ser Asp Gly Gly Val Ser Trp Ser Pro Met Asp Asp Glu Leu Leu Ala
 50 55 60
 Gln Pro Gln Val Met Lys Leu Leu Asp Ser Leu Arg Glu Gln Tyr Thr
 65 70 75 80
 Arg Tyr Gln Glu Val Cys Arg Gln Arg Ser Lys Arg Thr Gln Leu Glu
 85 90 95
 Glu Ile Gln Gln Lys Val Met Gln Val Val Asn Trp Leu Glu Gly Pro
 100 105 110
 Gly Ser Glu Gln Leu Arg Ala Gln Trp Gly Ile Gly Asp Ser Ile Arg
 115 120 125
 Ala Ser Gln Ala Leu Gln Gln Lys His Glu Glu Ile Glu Ser Gln His

130	135	140
Ser Glu Trp Phe Ala Val Tyr Val Glu Leu Asn Gln Gln Ile Ala Ala		
145	150	155
Leu Leu Asn Ala Gly Asp Glu Glu Asp Leu Val Glu Leu Lys Ser Leu		160
165	170	175
Gln Gln Gln Leu Ser Asp Val Cys Tyr Arg Gln Ala Ser Gln Leu Glu		
180	185	190
Phe Arg Gln Asn Leu Leu Gln Ala Ala Leu Glu Phe His Gly Val Ala		
195	200	205
Gln Asp Leu Ser Gln Gln Leu Asp Gly Leu Leu Gly Met Leu Cys Val		
210	215	220
Asp Val Ala Pro Ala Asp Gly Ala Ser Ile Gln Gln Thr Leu Lys Leu		
225	230	235
Leu Glu Glu Lys Leu Lys Ser Val Asp Val Gly Leu Gln Gly Leu Arg		240
245	250	255
Glu Lys Gly Gln Gly Leu Leu Asp Gln Ile Ser Asn Gln Ala Ser Xaa		
260	265	270
Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Glu Asn Val Asp		
275	280	285
His Ile Gln Gly Val Met Glu Asp Met Gln Leu Arg Lys Gln Arg Cys		
290	295	300
Glu Asp Met Val Asp Val Arg Arg Leu Lys Met Leu Gln Met Val Gln		
305	310	315
Leu Phe Lys Cys Glu Glu Asp Ala Ala Lys Ala Val Glu Trp Leu Ser		320
325	330	335
Glu Leu Leu Asp Ala Leu Leu Lys Thr His Ile Arg Leu Gly Asp Asp		
340	345	350
Ala Gln Glu Thr Lys Val Leu Leu Glu Lys His Arg Lys Phe Val Asp		
355	360	365
Val Ala Gln Ser Thr Tyr Asp Tyr Gly Arg Gln Leu Leu Gln Ala Thr		
370	375	380
Val Val Leu Cys Gln Ser Leu Arg Cys Thr Ser Arg Ser Ser Gly Asp		
385	390	395
Thr Leu Pro Arg Leu Asn Arg Val Trp Lys Gln Phe Thr Ile Ala Ser		400
405	410	415
Glu Glu Arg Val His Arg Leu Glu Met Ala Ile Ala Phe His Ser Asn		
420	425	430
Ala Glu Lys Ile Leu Gln Asp Cys Pro Glu Glu Pro Glu Ala Ile Asn		
435	440	445
Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu		
450	455	460
Asp Arg Leu Thr Val Pro Val Val Tyr Pro Asp Gly Thr Glu Gln Tyr		
465	470	475
Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp		480
485	490	495
Arg Met Lys Leu Val Asn Leu Lys Arg Gln Gln Leu Arg His Pro Glu		
500	505	510
Met Val Thr Thr Glu Ser		
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<210> 6053

<211> 3257

<212> DNA

<213> Homo sapiens

<400> 6053
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120 ttgggtctcc gtggttcagg ccggccccc cttcctggtc tcccttctcc cgctggcccg
180 gtttatcggg aggagattgt cttccagggc tagcaattgg acttttgatg atgtttgacc
240 cagcggcagg aatagcaggc aacgtgattt caaagctggg ctcagccctt gtttcttc
300 tcgtgtaaatc gcaaaaaccca ttttgagca ggaattccaa tcatgtctgt gatgggtggtg
360 agaaaagaagg tgacacggaa atgggagaaa ctcccaggca ggaacacccctt ttgctgtgat
420 gggccgcgtca tcatggcccg gcaaaaaggc attttctacc tgacccttt cctcatcctg
480 gggacatgta cactttctt cgcctttagt tgccgctacc tggctgttca gctgtctcc
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600 agcttcagtg accctggagt gattcctcgg gcgcgtaccag atgaagcagc tttcatagaa
660 atggagatag aagctaccaa tggtgccgtg ccccaaggcc agagaccacc gcctcgtatc
720 aagaatttcc agataaaacaa ccagattgtg aaactgaaat actgttacac atgcaagatc
780 ttccggccctc cccggggccctc ccattgcagc atctgtgaca actgtgtgga ggcgcgtatc
840 catcaactgcc cctgggtggg gaattgtgtt ggaaagagga actaccgcta cttctaccc
900 ttcatccctt ctctctccct cctcacaatc tatgtcttcg cttcaacat cgtctatgtg
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1020 ctagaagtcc tcatttgctt ctttacactc tggccgtcg tggactgac tggatttcat
1080 actttctcg tggctctcaa ccagacaacc aatgaagaca tcaaaggatc atggacaggg
1140 aagaatcgcg tccagaatcc ctacagccat ggcaatattt tgaagaactg ctgtgaagtg
1200 ctgtgtggcc ctttggccccc cagtgtgtcg gatcgaaggg gtatccgtcc actggagggaa
1260 atgccaatcgac gaccccccag tactcaagag accagtagca gcctcttgc acagagccca
1320 gcccccacag aacacctgaa ctcaaatttgc atgccggagg acagcagcac tcccaagag
1380 atgccacccctc cagagcccccc agagccacca caggaggcag ctgaagctga gaagtagcc
1440 atctatggaa gagacttttgc tttgtgttta attagggtca tgagagatcc caggtgagaa
1500 gttaaacctg agacagagag caagtaagct gtccctttta actgttttcc tttggcttt
1560

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1740
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2280
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3120
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<210> 6054
 <211> 382
 <212> PRT
 <213> Homo sapiens

<400> 6054
 Leu Phe Leu Leu Ser Cys Asn Arg Lys Thr His Phe Gly Ala Gly Ile
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 Pro Ile Met Ser Val Met Val Val Arg Lys Lys Val Thr Arg Lys Trp
 20 25 30
 Glu Lys Leu Pro Gly Arg Asn Thr Phe Cys Cys Asp Gly Arg Val Met
 35 40 45
 Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile Leu
 50 55 60
 Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala Val
 65 70 75 80
 Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu Phe
 85 90 95
 Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp Pro Gly Val Ile
 100 105 110
 Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile Glu Met Glu Ile Glu
 115 120 125
 Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg Pro Pro Pro Arg Ile
 130 135 140
 Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys Leu Lys Tyr Cys Tyr
 145 150 155 160
 Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser His Cys Ser Ile Cys
 165 170 175
 Asp Asn Cys Val Glu Arg Phe Asp His His Cys Pro Trp Val Gly Asn
 180 185 190
 Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu Ser
 195 200 205
 Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr Val
 210 215 220
 Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr
 225 230 235 240
 Pro Gly Thr Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp Ser
 245 250 255
 Val Val Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln
 260 265 270
 Thr Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val
 275 280 285
 Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val
 290 295 300
 Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly Ile Leu
 305 310 315 320
 Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser
 325 330 335
 Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn Ser

340	345	350
Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro		
355	360	365
Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala Ala Glu Ala Glu Lys		
370	375	380

<210> 6055
<211> 2089
<212> DNA
<213> Homo sapiens

<400> 6055
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120
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180
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240
acagaagctt tggctgggc agaaggacag cgactctta gtgcgtggct caatggcag
300
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360
cctatttggc gcatggctgc cagccccagt ggctctcaac ttttggttgg ttgtgaagat
420
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480
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720
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1260

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<210> 6056
 <211> 285
 <212> PRT
 <213> Homo sapiens

<400> 6056
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 65 70 75 80
 Thr Glu Ala Leu Cys Trp Ala Glu Gly Gln Arg Leu Phe Ser Ala Gly
 85 90 95
 Leu Asn Gly Glu Ile Met Glu Tyr Asp Leu Gln Ala Leu Asn Ile Lys
 100 105 110
 Tyr Ala Met Asp Ala Phe Gly Gly Pro Ile Trp Ser Met Ala Ala Ser
 115 120 125
 Pro Ser Gly Ser Gln Leu Leu Val Gly Cys Glu Asp Gly Ser Val Lys
 130 135 140
 Leu Phe Gln Ile Thr Pro Asp Lys Ile Gln Phe Glu Arg Asn Phe Asp

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His Ile Ala Ala Gly Ser Ile Asp Tyr Ile Ser Val Phe Asp Val Lys			
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Ser Gly Ser Ala Val His Lys Met Ile Val Asp Arg Gln Tyr Met Gly			
195	200	205	
Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp			
210	215	220	
Gly Thr Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp			
225	230	235	240
Ser Ala Thr Gly Thr Leu Val Lys Ser His Leu Ile Ala Asn Ala Asp			
245	250	255	
Val Gln Ser Ile Ala Val Ala Asp Gln Glu Asp Ser Phe Val Val Gly			
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<210> 6057

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 6057

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<210> 6058
<211> 500
<212> PRT
<213> Homo sapiens

<400> 6058

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 35 40 45
 Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
 50 55 60
 Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
 65 70 75 80
 Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
 85 90 95
 Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ser Ile Phe His Ala Gly
 100 105 110
 Lys Ser Gln Gly Leu His Glu Asn Asn Ile Pro Asp Asn Glu Thr Gly
 115 120 125
 Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
 130 135 140
 Pro Ser Leu Asn Pro Glu Tyr Glu Arg Glu Pro Asn His Asn Lys Ser
 145 150 155 160
 Leu Ala Ala Gly Val Trp Gly Leu His Ala Gln Thr His Thr Tyr Pro
 165 170 175
 Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
 180 185 190
 Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
 195 200 205
 Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
 210 215 220
 Pro Val Lys Asn Gly Thr Gly Pro Ser Val Tyr Lys Gly Leu Val Pro
 225 230 235 240
 Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
 245 250 255
 Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
 260 265 270
 Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
 275 280 285
 Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
 290 295 300
 Val Asp Lys Leu Asn Gln Gln Pro Arg Leu Thr Lys Leu Thr Arg Met
 305 310 315 320
 Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
 325 330 335
 Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
 340 345 350
 Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
 355 360 365
 Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
 370 375 380
 Asn Ala Ser Val Ile Ser Gln Gln Ile Ile Arg Ser Ser Thr Phe Pro
 385 390 395 400
 Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
 405 410 415
 Lys Glu Met Gly Trp Gln Glu Asp Ser Glu Asn Asp Glu Thr Cys Ala

420 425 430
Pro Leu Thr Glu Asp Glu Met Arg Glu Phe Gln Val Ile Ser Glu Gln
435 440 445
Leu Gln Lys Asn Gly Leu Arg Lys Asn Gly Ile Leu Lys Asn Gly Leu
450 455 460
Ile Cys Asp Phe Lys Phe Gly Pro Trp Lys Asn Ser Thr Phe Lys Pro
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Asp Asp Asp Val
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<210> 6059
<211> 1442
<212> DNA
<213> Homo sapiens

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420
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1080

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 1320
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 gc
 1442

<210> 6060
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 6060
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 Ile Ser Tyr Thr Ile Thr Ile Phe Gly Asn Val Ser Ile Met Met Val
 35 40 45
 Cys Ile Leu Asp Pro Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Ile Leu Asp Leu Cys Tyr Thr Thr Thr Val Pro His
 65 70 75 80
 Met Leu Val Asn Ile Gly Cys Asn Lys Lys Thr Ile Ser Tyr Ala Gly
 85 90 95
 Cys Val Ala His Leu Ile Ile Phe Leu Ala Leu Gly Ala Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Val Val Ile Met Asn Tyr Trp Phe Cys Leu Arg Met
 130 135 140
 Ala Ala Phe Ser Trp Leu Ile Gly Phe Gly Asn Ser Val Leu Gln Ser
 145 150 155 160
 Ser Leu Thr Leu Asn Met Pro Arg Cys Gly His Gln Glu Val Asp His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190
 Lys Pro Ile Glu Ala Glu Leu Phe Phe Ser Val Leu Ile Leu Leu
 195 200 205
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Gly Phe Ile Ala Gln Ala
 210 215 220
 Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Met Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
 245 250 255
 Tyr Met Tyr Leu Gln Pro Pro Ser Ser Thr Ser Lys Asp Trp Gly Lys

260	265	270
Met Val Ser Leu Phe Tyr Gly Ile Ile Thr Ser Met	Leu Asn Ser Leu	
275	280	285
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<210> 6061
<211> 1582
<212> DNA
<213> Homo sapiens

<400> 6061
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 1582

<210> 6062
<211> 226
<212> PRT
<213> Homo sapiens

<400> 6062
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 35 40 45
Leu Ile Gly Ala Met Glu Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu
 50 55 60
Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn
 65 70 80
Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala
 85 90 95
Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr
 100 105 110
Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile
 115 120 125
Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys
 130 135 140
Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr
 145 150 155 160
Ala Leu Leu Leu Ser Val Ser His Leu Val Leu Val Thr Arg Asn Ala
 165 170 175
Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala
 180 185 190
Ala Glu Glu His Leu Glu Val Leu Arg Glu Ala Ala Leu Ala Ser Glu
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Pro Asp Lys Gly Leu Pro Gly Pro Glu Gly Phe Leu Gln Glu Gln Ser
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<210> 6063
<211> 2286

<212> DNA

<213> Homo sapiens

<400> 6063

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 1920
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 1980
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 2040
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<210> 6064
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 6064
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 Phe Leu His Pro Asp Leu Gly Val Gly Gly Ala Glu Arg Leu Val Leu
 35 40 45
 Asp Ala Ala Leu Ala Leu Gln Ala Arg Gly Cys Ser Val Lys Ile Trp
 50 55 60
 Thr Ala His Tyr Asp Pro Gly His Cys Phe Ala Glu Ser Arg Glu Leu
 65 70 75 80
 Pro Val Arg Cys Ala Gly Asp Trp Leu Pro Arg Gly Leu Gly Trp Gly
 85 90 95
 Gly Arg Gly Ala Ala Val Cys Ala Tyr Val Arg Met Val Phe Leu Ala
 100 105 110
 Leu Tyr Val Leu Phe Leu Ala Asp Glu Glu Phe Asp Val Val Val Cys
 115 120 125
 Asp Gln Val Ser Ala Cys Ile Pro Val Phe Arg Leu Ala Arg Arg Arg
 130 135 140
 Lys Lys Ile Leu Phe Tyr Cys His Phe Pro Asp Leu Leu Thr Lys

145 150 155 160
Arg Asp Ser Phe Leu Lys Arg Leu Tyr Arg Ala Pro Ile Asp Trp Ile
165 170 175
Glu Glu Tyr Thr Thr Gly Met Ala Asp Cys Ile Leu Val Asn Ser Gln
180 185 190
Phe Thr Ala Ala Val Phe Lys Glu Thr Phe Lys Ser Leu Ser His Ile
195 200 205
Asp Pro Asp Val Leu Tyr Pro Ser Leu Asn Val Thr Ser Phe Asp Ser
210 215 220
Val Val Pro Glu Xaa Ser Trp Met Thr
225 230

<210> 6065
<211> 2084
<212> DNA
<213> Homo sapiens

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180
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240
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720
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 1860
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 1980
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 2084

<210> 6066
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 6066
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 Arg Val Leu Arg Gly Val Asp Asp Leu Asp Phe Phe Ile Gly Asp Glu
 20 25 30
 Ala Ile Asp Lys Pro Thr Tyr Ala Thr Lys Trp Pro Ile Arg His Gly
 35 40 45
 Ile Ile Glu Asp Trp Asp Leu Met Glu Arg Phe Met Glu Gln Val Val
 50 55 60
 Phe Lys Tyr Leu Arg Ala Glu Pro Glu Asp His Tyr Phe Leu Met Gly
 65 70 75 80

<210> 6067
 <211> 406

<212> DNA
 <213> Homo sapiens

<400> 6067
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 240
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 300
 gactataata atcgcaacag ctaacactct tccagctaac actgcatgct gggcaactgtc
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 406

<210> 6068
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 6068
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 20 25 30
 Ser Leu Phe Leu Ser Gly Asn Val Ser Ser Arg Arg Met Arg Thr Ala
 35 40 45
 Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
 50 55 60
 Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
 65 70 75 80
 Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
 85 90 95
 Arg Gly Ala Val Ser Ser Gly Arg Leu His Arg Arg Gly Thr Gly Ala
 100 105 110
 Met Trp Trp Glu Gly
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<210> 6069
 <211> 456
 <212> DNA
 <213> Homo sapiens

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 120
 ctggagtgact gtatcatggt cattggggtc cccaaacgtgg gcaagtcctc cctcatcaac
 180

tccctccgga ggcagcacct caggaaaggg aaagccacca gggtggttgg cgagcctggg
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 300
 ctgtcaagag ctctgcaggc gtctggcacc tgccgaccc tttgtggctt ccggctgctg
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 456

<210> 6070
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 6070
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 Asn Val Lys Gln Ile Ile Pro Met Val Thr Glu Leu Ile Gly Arg Ser
 20 25 30
 His Arg Tyr His Arg Lys Glu Asn Leu Glu Tyr Cys Ile Met Val Ile
 35 40 45
 Gly Val Pro Asn Val Gly Lys Ser Ser Leu Ile Asn Ser Leu Arg Arg
 50 55 60
 Gln His Leu Arg Lys Gly Lys Ala Thr Arg Val Gly Glu Pro Gly
 65 70 75 80
 Ile Thr Arg Ala Val Met Ser Lys Ile Gln Val Glu Ser Ser Gly Ala
 85 90 95
 Arg Pro Ser Thr Leu Ser Arg Ala Leu Gln Ala Ser Gly Thr Cys Arg
 100 105 110
 Pro Leu Cys Gly Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu
 115 120 125
 Ser Val Pro Ala Glu His Pro Arg Gly Arg His Cys Pro Ala Leu Ile
 130 135 140
 Pro Gln Ser Ser
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<210> 6071
 <211> 2633
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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360
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420
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480
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840
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1080
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1260
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1380
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1440
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1560
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1680
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1800
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1860
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1920

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<210> 6072
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 6072
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 20 25 30
 Pro Thr Trp Arg Asn Pro Ile Ser Thr Lys Asn Thr Lys Ile Asn Lys
 35 40 45
 Ala Trp Trp Arg Val Pro Val Val Pro Ala Thr Arg Glu Ala Glu Ala
 50 55 60
 Gly Glu Ser Leu Glu Pro Gly Arg Arg Arg Phe Gln
 65 70 75

<210> 6073
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 6073
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 120
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240
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360
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<210> 6074
<211> 69
<212> PRT
<213> Homo sapiens

<400> 6074
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Arg Gly Leu Cys Thr Ala Ser Phe Pro Pro His Leu Ser Pro Ala Arg
20 25 30
Ala Pro Thr Gly Pro Phe Ser Pro Arg Met Lys Pro Ala Gly Ser Val
35 40 45
Asn Asp Met Ala Leu Asp Ala Phe Asp Leu Asp Arg Met Lys Gln Glu
50 55 60
Ile Leu Glu Glu Val
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<210> 6075
<211> 4668
<212> DNA
<213> Homo sapiens

<400> 6075
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660

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 <211> 601
 <212> PRT
 <213> Homo sapiens

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 Arg Ser Lys Ile Ala Glu Thr Phe Gly Leu Gln Glu Asn Tyr Ile Lys
 115 120 125
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 145 150 155 160
 Ser Glu Glu Asp Ala Arg Lys Asn Phe Gln Leu Glu Glu Glu Gln

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Leu Glu Ile Leu Ala Lys Arg Ala Ala Glu Thr Val Val Asp Pro Glu			
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Met Thr Pro Tyr Leu Asp Ile Ala Asn Gln Thr Gly Arg Ser Ile Arg			
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Glu Lys Gly Arg Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu			
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Pro Cys Leu Leu Asp Ala Asp Lys Tyr Phe Cys Glu Cys Cys Arg Glu			
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Trp Cys Tyr Phe Arg Leu Glu Gln Leu Glu Cys Leu Asp Asp Ala Glu			
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Asn His Gln Arg Leu Val His Ile Lys Gly Asn Cys Gly Lys Glu Lys			
325	330	335	
Val Leu Phe Leu Arg Leu Tyr Leu Leu Gln Gly Ile Arg Asn Tyr His			
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Ser Gly Asn Asp Val Glu Ala Tyr Glu Tyr Leu Asn Arg His Val Ser			
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Ser Leu Lys Ser Tyr Ile Leu Ile His Gln Lys Trp Thr Ile Cys Cys			
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Ser Trp Gly Leu Leu Pro Arg Lys Xaa Arg Leu Gly Leu Arg Ala Cys			
385	390	395	400
Asp Gly Asn Val Asp His Ala Ala Thr His Ile Thr Asn Arg Arg Glu			
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Glu Leu Ala Gln Ile Arg Lys Glu Glu Lys Glu Lys Arg Arg Arg			
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Ala Gln Gln Ile Leu Leu Ser Asn Pro Gln Met Trp Trp Leu Asn Asp			
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Ser Asn Pro Glu Thr Asp Asn Arg Gln Glu Ser Pro Ser Gln Glu Asn			
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Ile Asp Arg Leu Val Tyr Met Gly Phe Asp Ala Leu Val Ala Glu Ala			
485	490	495	
Ala Leu Arg Val Phe Arg Gly Asn Val Gln Leu Ala Ala Gln Thr Leu			
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Ala His Asn Gly Gly Ser Leu Pro Pro Glu Leu Pro Leu Ser Pro Glu			
515	520	525	
Asp Ser Leu Ser Pro Pro Ala Thr Ser Pro Ser Asp Ser Ala Gly Thr			
530	535	540	
Ser Ser Ala Ser Thr Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu			
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Ile Leu Glu Asp Ile Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr			
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Leu Glu Asp Glu Glu Ile Ile Ala Glu Tyr Leu Ser Tyr Val Glu			
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<211> 2093
<212> DNA
<213> Homo sapiens

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1380

5260

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 <212> PRT
 <213> Homo sapiens

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 Ser Gly Arg Glu Gly Ala Ser Gly Pro Gly Val Gly Pro His Ile Tyr
 35 40 45
 Val Arg Glu Ala Glu Asp Arg Glu Leu Val Thr Met Ala Gly Pro Gln
 50 55 60
 Pro Leu Ala Leu Gln Leu Glu Gln Leu Leu Asn Pro Arg Pro Ser Glu
 65 70 75 80
 Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala Arg Val Ile
 85 90 95
 Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe Leu Val Val
 100 105 110
 Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp Thr Asp Lys
 115 120 125
 Arg Tyr Cys Gly Lys Thr Thr Ser Arg Lys Ala Trp Asn Glu Asp His
 130 135 140
 Trp Glu Gln Thr Leu Pro Gly Ser Ser Asp Glu Glu Ile Ser Asp Glu
 145 150 155 160
 Glu Gly Ser Gly Asp Glu Asp Ser Glu Gly Leu Gly Leu Glu Glu Tyr
 165 170 175
 Asp Glu Asp Asp Leu Gly Ala Ala Glu Gln Glu Cys Gly Asp Gln

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Cys Pro Glu Tyr Gln		
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<210> 6079
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<212> DNA
<213> Homo sapiens

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<211> 162
<212> PRT
<213> Homo sapiens

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Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
35 40 45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
50 55 60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
65 70 75 80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
85 90 95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Ala Thr Gln Pro

100	105	110
Met Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg		
115	120	125
Gln Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro		
130	135	140
Val Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg		
145	150	155
Gly Lys		

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<211> 655
<212> DNA
<213> Homo sapiens

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<210> 6082
<211> 218
<212> PRT
<213> Homo sapiens

<400> 6082
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20 25 30
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35 40 45
Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys Leu Thr
50 55 60
Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser Ser His

65	70	75	80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu			
85	90	95	
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu			
100	105	110	
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met			
115	120	125	
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn			
130	135	140	
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu			
145	150	155	160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe			
165	170	175	
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Arg Gln			
180	185	190	
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn			
195	200	205	
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile			
210	215		

<210> 6083

<211> 358

<212> DNA

<213> Homo sapiens

<400> 6083

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<210> 6084

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<212> PRT

<213> Homo sapiens

<400> 6084

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50	55	60	
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr			
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln			

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Lys Asp Asp Leu Gln
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<210> 6085
<211> 2307
<212> DNA
<213> Homo sapiens

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 <211> 84
 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 Gln Pro Pro Tyr Leu Pro Arg Phe Ser Thr Ala Tyr Leu Phe Gln Trp
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<210> 6087
<211> 1506
<212> DNA
<213> Homo sapiens

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<211> 326
<212> PRT
<213> Homo sapiens

<400> 6088

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Pro	Gly	Asp	Leu	Leu	Ser	Ala	Arg	Leu	Leu	Ser	Gln	Glu	Lys	Arg	Ala
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Ala	Glu	Thr	His	Phe	Gly	Phe	Glu	Thr	Val	Ser	Glu	Glu	Lys	Gly	
						50			55			60			
Gly	Lys	Val	Tyr	Gln	Val	Phe	Glu	Ser	Val	Ala	Lys	Lys	Tyr	Asp	Val
						65			70		75		80		
Met	Asn	Asp	Met	Met	Ser	Leu	Gly	Ile	His	Arg	Val	Trp	Lys	Asp	Leu
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Leu	Leu	Trp	Lys	Met	His	Pro	Leu	Pro	Gly	Thr	Gln	Leu	Leu	Asp	Met
						100			105			110			
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Ser	Gln	His	Gln	Arg	Lys	Gln	Lys	Arg	Gln	Leu	Arg	Ala	Gln	Gln	Asn
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Ala	Trp	Val	Leu	Gly	Asp	Ala	Glu	Glu	Leu	Pro	Phe	Asp	Asp	Asp	Lys
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Asp	Gln	Ala	Leu	Gln	Glu	Ala	His	Arg	Val	Leu	Lys	Pro	Gly	Gly	Arg
						225			230		235		240		
Phe	Leu	Cys	Leu	Glu	Phe	Ser	Gln	Val	Asn	Asn	Pro	Leu	Ile	Ser	Arg
						245			250			255			
Leu	Tyr	Asp	Leu	Tyr	Ser	Phe	Gln	Val	Ile	Pro	Val	Leu	Gly	Glu	Val
						260			265			270			
Ile	Ala	Gly	Asp	Trp	Lys	Ser	Tyr	Gln	Tyr	Leu	Val	Glu	Ser	Ile	Arg
						275			280			285			
Arg	Phe	Pro	Ser	Gln	Glu	Glu	Phe	Lys	Asp	Met	Ile	Glu	Asp	Ala	Gly
						290			295			300			
Phe	His	Lys	Val	Thr	Tyr	Glu	Ser	Leu	Thr	Ser	Gly	Ile	Val	Ala	Ile
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325

<210> 6089
<211> 4211
<212> DNA
<213> Homo sapiens

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5269

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<210> 6090
<211> 839
<212> PRT
<213> Homo sapiens

<400> 6090
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Arg	Gln	Arg
Phe	Arg	His
His	Phe	Gln
Tyr	Gln	Tyr
His	Glu	Ala
Glu	Ala	Ser
Leu	Ser	Gly
Gln	Leu	Arg
Leu	Arg	Val
Val	Leu	Cys
Leu	Cys	Glu
Cys	Glu	Trp
Glu	Trp	Leu
Trp	Leu	Arg
Arg	Glu	Ala
Ala	Leu	Ser
Ser	Gln	Leu
Gln	Leu	Arg
Leu	Arg	Val
Val	Leu	Glu
Glu	Leu	Leu
Leu	Leu	Leu
Leu	Leu	Val
Val	Leu	Glu
Glu	Leu	Ile
Ile	Leu	Glu
Glu	Ile	Leu
Ile	Leu	Leu
Leu	Leu	Val
Val	Leu	Glu
Glu	Ile	Ile
Ile	Ile	Glu
Glu	Ile	Leu
Ile	Ile	Asn
Asn	Ile	Ile
Ile	Ile	Glu
Glu	Ile	Asn
Asn	Ile	Val
Val	Ile	Ala
Ala	Ile	Val
Val	Ile	Gln
Gln	Ile	Glu
Glu	Ile	Arg
Arg	Ile	Arg
Arg	Ile	Gln
Gln	Ile	Gln
Gln	Ile	Ile
Ile	Ile	Cys
Cys	Ile	Pro
Pro	Ile	Asp
Asp	Ile	Gln
Gln	Ile	Pro
Pro	Ile	Trp
Trp	Ile	Val
Val	Ile	Gln
Gln	Ile	Glu
Glu	Ile	Asp
Asp	Ile	Gly
Gly	Ile	Ser
Ser	Ile	Gln
Gln	Ile	Lys
Lys	Ile	Leu
Leu	Ile	Glu
Glu	Ile	Asn
Asn	Ile	Leu
Leu	Ile	Pro
Pro	Ile	Glu
Glu	Ile	His
His	Ile	Val
Val	Ile	Asn
Asn	Ile	Phe
Phe	Ile	Ile
Ile	Ile	Gln
Gln	Ile	His
His	Ile	Arg
Arg	Ile	Arg
Arg	Ile	Ile
Ile	Ile	His
His	Ile	Arg
Arg	Ile	Arg
Arg	Ile	Ile
Ile	Ile	Asn
Asn	Ile	Leu
Leu	Ile	Thr
Thr	Ile	Gln
Gln	Ile	His
His	Ile	Arg
Arg	Ile	Val
Val	Ile	His
His	Ile	Thr
Thr	Ile	Gly
Gly	Ile	Glu
Glu	Ile	Asp
Asp	Ile	Gly
Gly	Ile	Ser
Ser	Ile	Tyr
Tyr	Ile	Asn
Asn	Ile	Ile
Ile	Ile	Gly
Gly	Ile	Asn
Asn	Ile	Leu
Leu	Ile	Arg
Arg	Ile	Arg
Arg	Ile	Ile
Ile	Ile	Asn
Asn	Ile	Leu
Leu	Ile	Thr
Thr	Ile	Lys
Lys	Ile	Leu
Leu	Ile	Ser
Ser	Ile	Val
Val	Ile	Lys
Lys	Ile	Lys
Lys	Ile	Ile
Ile	Ile	Ser
Ser	Ile	Glu
Glu	Ile	Tyr
Tyr	Ile	Ser

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Val Gln Asp Phe Gly Glu Gly Cys Glu Phe Gln Gly Lys Leu Asp Arg			
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Lys Gln Gly Ile Pro Met Lys Glu Ile Leu Gly Gln Pro Ser Ser Lys			
515	520	525	
Arg Met Asn Tyr Ser Glu Val Pro Tyr Val His Lys Lys Ser Ser Thr			
530	535	540	
Gly Glu Arg Pro His Lys Cys Asn Glu Cys Gly Lys Ser Phe Ile Gln			
545	550	555	560
Ser Ala His Leu Ile Gln His Gln Arg Ile His Thr Gly Glu Lys Pro			
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Phe Arg Cys Glu Glu Cys Gly Lys Ser Tyr Asn Gln Arg Val His Leu			
580	585	590	
Thr Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Thr Cys Pro			
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Leu Cys Gly Lys Ala Phe Arg Val Arg Ser His Leu Val Gln His Gln			
610	615	620	
Ser Val His Ser Gly Glu Arg Pro Phe Lys Cys Asn Glu Cys Gly Lys			
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Gly Phe Gly Arg Arg Ser His Leu Ala Gly His Leu Arg Leu His Ser			
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Arg Glu Lys Ser His Gln Cys Arg Glu Cys Gly Glu Ile Phe Phe Gln			
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Tyr Val Ser Leu Ile Glu His Gln Val Leu His Met Gly Gln Lys Asn			
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Glu Lys Asn Gly Ile Cys Glu Glu Ala Tyr Ser Trp Asn Leu Thr Val			
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Ile Glu Asp Lys Lys Ile Glu Leu Gln Glu Gln Pro Tyr Gln Cys Asp			
705	710	715	720
Ile Cys Gly Lys Ala Phe Gly Tyr Ser Ser Asp Leu Ile Gln His Tyr			
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Arg Thr His Thr Ala Glu Lys Pro Tyr Gln Cys Asp Ile Cys Arg Glu			
740	745	750	
Asn Val Gly Gln Cys Ser His Thr Lys Gln His Gln Lys Ile Tyr Ser			
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Ser Thr Lys Ser His Gln Cys His Glu Cys Gly Arg Gly Phe Thr Leu			
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Lys Ser His Leu Asn Gln His Gln Arg Ile His Thr Gly Glu Lys Pro			
785	790	795	800
Phe Gln Cys Lys Glu Cys Gly Met Asn Phe Ser Trp Ser Cys Ser Leu			
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<210> 6091
<211> 1336
<212> DNA
<213> Homo sapiens

<400> 6091

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<210> 6092
<211> 118
<212> PRT
<213> Homo sapiens

<400> 6092
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		Ser	Pro
			Ala
			Ser
			Gln
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Thr	Pro	Asn	Trp
Tyr	Trp	Val	Leu
			Gly
			His
			Pro
			Asn
			Leu
			Ile
			Arg
			Asp
	35	40	45
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Val	Pro	Ser	Pro
Pro	Pro	Ser	Gly
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			Arg
			Leu
			Pro
			Ser
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Ser	Arg	His	Glu
Gly	Pro	Ser	Pro
Pro	Pro	Arg	Asp
			Leu
			Gly
			Thr
			Ser
			Gly
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Pro	Ser	Arg	Ala
Ala	Ala	Ser	His
Lys	Pro	Ser	Asn
Glu	Gln	Gln	Arg
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			Ala
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Gly	Gln	Gln	Leu
Leu	Leu	His	Leu
			Leu
			Pro
			Ala
			Leu
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			Gly
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<210> 6093
<211> 1998
<212> DNA
<213> Homo sapiens

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<210> 6094
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 <212> PRT
 <213> Homo sapiens

<400> 6094

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Thr	Gly	Pro	Val	Ser	Gln	Ser	Phe	Leu	Gln	Met	Leu	Ile	Gly	Val	Cys
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Trp	Asn	Pro	Lys	Pro	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Asp	Gly	Leu	Leu
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Ser	Cys	Asn	Phe	Leu	Gly	Glu	Glu	Thr	Phe	Ser	Ser	Phe	Pro	Phe	Leu
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Val	His	Pro	Cys	Thr	Leu	Val	Leu	Ser	Gln	Pro	Leu	Pro	His	Ile	Val

	85	90	95												
Pro	Asp	Ser	Arg	Gly	Thr	Ser	Ser	Leu	His	Arg	Ala	Ala	Ala	Gly	
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Leu	Arg	Ala	Glu	Pro	Val	Gly	Ala	Glu	Ala	Leu	Ala	Pro	Glu	Val	Gln
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<211> 441

<212> DNA

<213> Homo sapiens

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441

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<210> 6096

<211> 97

<212> PRT

<213> Homo sapiens

<400> 6096

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Ser	Gly	Ser	Ser	Gly	Ser	Lys	Ser	Gly	Gly	Asp	Lys	Met	Phe	Ser	Leu
					20			25						30	
Lys	Lys	Trp	Asn	Ala	Val	Ala	Met	Trp	Ser	Trp	Asp	Val	Glu	Cys	Asp
			35				40				45				
Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Val	Val	Trp	Gly	Glu	Cys
											50		55		60
Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn
											65		70		75
Asn	Arg	Cys	Pro	Leu	Cys	Gln	Gln	Asp	Trp	Val	Val	Gln	Arg	Ile	Gly
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<210> 6097

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

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<400> 6098
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 35 40 45
 Arg Cys Gln Glu Met Gly Ala Arg Ala Ala Lys Ala Val Glu Ser Gly
 50 55 60
 Ala Leu Glu Leu Ser Pro Ser Phe His Gln Lys Asn Trp Gln His Trp
 65 70 75 80
 Phe Ser His Ile Gly Asp Trp Cys Val Ser Arg Gln Leu Trp Trp Gly
 85 90 95
 His Gln Ile Pro Ala Tyr Leu Val Xaa Xaa Gly Pro Cys Ala Xaa Gly
 100 105 110
 Glu Glu Xaa Thr Cys Trp Val Val Gly Arg Ser Gly Ala Glu Ala Arg

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145	150	155
Pro Phe Ser Ala Leu Gly Trp Pro Gln Glu Thr Pro Asp Leu Ala Arg		
165	170	175
Phe Tyr Pro Leu Ser Leu Leu Glu Thr Gly Ser Asp Leu Leu Leu Phe		
180	185	190
Trp Val Gly Arg Met Val Met Leu Gly Thr Gln Leu Thr Gly Gln Leu		
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Pro Phe Ser Lys Val Leu Leu His Pro Met Val Arg Asp Arg Gln Gly		
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Ile Ser Gly Val Glu Met Gln Leu Leu Gln Glu Lys Leu Arg Ser Gly		
245	250	255
Asn Leu Asp Pro Ala Glu Leu Ala Ile Val Ala Ala Gln Lys Lys		
260	265	270
Asp Phe Pro His Gly Ile Pro Glu Cys Gly Thr Asp Ala Leu Arg Phe		
275	280	285
Thr Leu Cys Ser His Gly Val Gln Ala Gly Asp Leu His Leu Ser Val		
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325	330	335
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Glu Leu Ser Leu Val Thr His Ala Leu His His Phe Trp Leu His Asn		
370	375	380
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Gly Leu Arg Leu Leu Ala Pro Leu Met Pro Phe Leu Ala Glu Glu Leu		
420	425	430
Trp Gln Arg Leu Pro Pro Arg Pro Gly Cys Pro Pro Ala Pro Ser Ile		
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Pro Glu Leu Glu Arg Arg Phe Ser Arg Val Gln Glu Val Val Gln Val		
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Leu Pro Pro Gly Thr Ala Ala Pro Ser Gly Trp Ala Gln Ala Pro Leu		
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Thr Gln Arg Gln Gln Lys Leu Ser Ser Leu Gln Leu Glu Leu Ser Lys
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<210> 6099
<211> 3957
<212> DNA
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<210> 6100
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<400> 6100
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65	70	75
Lys Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asp Glu Glu Asn		
85	90	95
Leu Lys Lys Ile Phe Arg Glu Val Gln Ile Met Lys Met Leu Cys His		
100	105	110
Pro His Ile Ile Arg Leu Tyr Gln Val Met Glu Thr Glu Arg Met Ile		
115	120	125
Tyr Leu Val Thr Glu Tyr Ala Ser Gly Gly Glu Ile Phe Asp His Leu		
130	135	140
Val Ala His Gly Arg Met Ala Glu Lys Glu Ala Arg Arg Lys Phe Lys		
145	150	155
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Gln Ile Val Thr Ala Val Tyr Phe Cys His Cys Arg Asn Ile Val His		
165	170	175
Arg Asp Leu Lys Ala Glu Asn Leu Leu Asp Ala Asn Leu Asn Ile		
180	185	190
Lys Ile Ala Asp Phe Gly Phe Ser Asn Leu Phe Thr Pro Gly Gln Leu		
195	200	205
Leu Lys Thr Trp Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe		
210	215	220
Glu Gly Lys Glu Tyr Asp Gly Pro Lys Val Asp Ile Trp Ser Leu Gly		
225	230	235
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Val Val Leu Tyr Val Leu Val Cys Gly Ala Leu Pro Phe Asp Gly Ser		
245	250	255
Thr Leu Gln Asn Leu Arg Ala Arg Val Leu Ser Gly Lys Phe Arg Ile		
260	265	270
Pro Phe Phe Met Ser Thr Glu Cys Glu His Leu Ile Arg His Met Leu		
275	280	285
Val Leu Asp Pro Asn Lys Arg Leu Ser Met Glu Gln Ile Cys Lys His		
290	295	300
Lys Trp Met Lys Leu Gly Asp Ala Asp Pro Asn Phe Asp Arg Leu Ile		
305	310	315
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Ala Glu Cys Gln Gln Leu Lys Glu Glu Arg Gln Val Asp Pro Leu Asn		
325	330	335
Glu Asp Val Leu Leu Ala Met Glu Asp Met Gly Leu Asp Lys Glu Gln		
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Thr Leu Gln Ala Glu Gln Ala Gly Thr Ala Met Asn Ile Ser Val Pro		
355	360	365
Gln Val Gln Leu Ile Asn Pro Glu Asn Gln Ile Val Glu Pro Asp Gly		
370	375	380
Thr Leu Asn Leu Asp Ser Asp Glu Gly Glu Glu Pro Ser Pro Glu Ala		
385	390	395
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405	410	415
Pro Arg Thr Glu Val Met Glu Asp Leu Gln Lys Leu Leu Pro Gly Phe		
420	425	430
Pro Gly Val Asn Pro Gln Ala Pro Phe Leu Gln Val Ala Pro Asn Val		
435	440	445
Asn Phe Met His Asn Leu Leu Pro Met Gln Asn Leu Gln Pro Thr Gly		
450	455	460
Gln Leu Glu Tyr Lys Glu Gln Ser Leu Leu Gln Pro Pro Thr Leu Gln		

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Ala Asn Ile Gln Leu His Ala Gln Gln Leu Leu Lys Arg Pro Arg Gly			
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Pro Ser Pro Leu Val Thr Met Thr Pro Ala Val Pro Ala Val Thr Pro			
515	520	525	
Val Asp Glu Glu Ser Ser Asp Gly Glu Pro Asp Gln Glu Ala Val Gln			
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Ser Ser Thr Tyr Lys Asp Ser Asn Thr Leu His Leu Pro Thr Glu Arg			
545	550	555	560
Phe Ser Pro Val Arg Arg Phe Ser Asp Gly Ala Ala Ser Ile Gln Ala			
565	570	575	
Phe Lys Ala His Leu Glu Lys Met Gly Asn Asn Ser Ser Ile Lys Gln			
580	585	590	
Leu Gln Gln Glu Cys Glu Gln Leu Gln Lys Met Tyr Gly Gly Gln Ile			
595	600	605	
Asp Glu Arg Thr Leu Glu Lys Thr Gln Gln His Met Leu Tyr Gln			
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Gln Glu Gln His His Gln Ile Leu Gln Gln Ile Gln Asp Ser Ile			
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Cys Pro Pro Gln Pro Ser Pro Pro Leu Gln Ala Ala Cys Glu Asn Gln			
645	650	655	
Pro Ala Leu Leu Thr His Gln Leu Gln Arg Leu Arg Ile Gln Pro Ser			
660	665	670	
Ser Pro Pro Pro Asn His Pro Asn Asn His Leu Phe Arg Gln Pro Ser			
675	680	685	
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690	695	700	
Ala Ser Ser Ser Gln Phe Gln Gly Leu Pro Ser Arg Ser Ala Ile Phe			
705	710	715	720
Gln Gln Gln Pro Glu Asn Cys Ser Ser Pro Pro Asn Val Ala Leu Thr			
725	730	735	
Cys Leu Gly Met Gln Gln Pro Ala Gln Ser Gln Gln Val Thr Ile Gln			
740	745	750	
Val Gln Glu Pro Val Asp Met Leu Ser Asn Met Pro Gly Thr Ala Ala			
755	760	765	
Gly Ser Ser Gly Arg Gly Ile Ser Ile Ser Pro Ser Ala Gly Gln Met			
770	775	780	
Gln Met Gln His Arg Thr Asn Leu Met Ala Thr Leu Ser Tyr Gly His			
785	790	795	800
Arg Pro Leu Ser Lys Gln Leu Ser Ala Asp Ser Ala Glu Ala His Ser			
805	810	815	
Leu Asn Val Asn Arg Phe Ser Pro Ala Asn Tyr Asp Gln Ala His Leu			
820	825	830	
His Pro His Leu Phe Ser Asp Gln Ser Arg Gly Ser Pro Ser Ser Tyr			
835	840	845	
Ser Pro Ser Thr Gly Val Gly Phe Ser Pro Thr Gln Ala Leu Lys Val			
850	855	860	
Pro Pro Leu Asp Gln Phe Pro Thr Phe Pro Pro Ser Ala His Gln Gln			
865	870	875	880
Pro Pro His Tyr Thr Thr Ser Ala Leu Gln Gln Ala Leu Leu Ser Pro			
885	890	895	
Thr Pro Pro Asp Tyr Thr Arg His Gln Gln Val Pro His Ile Leu Gln			

900	905	910
Gly Leu Leu Ser Pro Arg His Ser Leu Thr Gly	HIS	Arg
915	920	925
Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys	Arg	Gln Gln Gln Gln
930	935	940
Arg Gln Gln Gln Gln Gln Gln Gln Gln	Tyr	Gln Glu Leu
945	950	955
Phe Arg His Met Asn Gln Gly Asp Ala Gly	Ser	Leu Ala Pro Ser Leu
965	970	975
Gly Gly Gln Ser Met Thr Glu Arg Gln Ala	Leu Ser Tyr Gln Asn Ala	
980	985	990
Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp	Asp Ala Tyr Val Gln	
995	1000	1005
Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala	Gly Lys Ala Leu Ser	
1010	1015	1020
Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln	Ser Ser Leu Met Gln	
1025	1030	1035
Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu	Cys Gly Ala Ser Leu	
1045	1050	1055
Gly Gly His Glu His Pro Asp Leu Ser Asp Gly	Ser Gln His Leu Asn	
1060	1065	1070
Ser Ser Cys Tyr Pro Ser Thr Cys Ile Thr Asp	Ile Leu Leu Ser Tyr	
1075	1080	1085
Lys His Pro Glu Val Ser Phe Ser Met Glu Gln	Ala Gly Val	
1090	1095	1100

<210> 6101
<211> 1447
<212> DNA
<213> Homo sapiens

<400> 6101
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120
catctagaaa tatactccgt gatctttctt gatggccaga ctgtgtaaaa ttcatacagt
180
gtttactaca gggatccccaa aatattgtta gttgaatgaa caaacacaca tttcaaggag
240
ggcactacag tgtagtagatg aacagtttc tgataggaga ttgtacaagt aatgtttca
300
ccagtgtatt ttaggacagc agattcagat taatgcgctg ggactgaatg caaatagtaa
360
aattacaaat ataaagtaaa aatttggAAC cttgccaca gagaggaata ataaatttat
420
ttaataattt gaaagaactg taaggtttag gttttgttct tatttttagt gcgactgaga
480
ttggagtcg tttgtagaca tatctgaaaa aagtgaaggg ggagatggaa gatggtaat
540
gcccaaggaaaa agatggaagg ataaatcagt gtaataaaaa ggagcaccc ttttcgcca
600
acagaagtaa aggtaaaggt taagtgtctg agttaacgaa tggattgttg acctctgggg
660

agggtgctcc catcagctca gctttgtgac gacctaaagaa tatcccttcc acacctttcc
 720
 tgatccaatc gtctggctg cataaaaacca cctaaatcaa tcaactgtta cacttccctt
 780
 agtgcttagga catattcata taactcccac gtattaaatg aaaatacatc catctaaaaaa
 840
 taaaacaaca agattgctgc tacaccaaga aaggattttt aaaaaggcctg ttcacaagct
 900
 aagtgagggc cagagggaaag gtgttcgttt aaactgaaat tcgagctgctg ataacaccc
 960
 ctaatgcaat caaacgctgt tgcagcacac ttcttaggag atcgggttca acggcaggga
 1020
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 1080
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 1140
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 1200
 ccaacgctga cgcccgccgt ctgaggtcgc catgggaaga gcggtaggcc accctgctccc
 1260
 tctgatcacc ggaggacagg gacacattgt tcagggccat attcaaacac tgcccgca
 1320
 acttgcgtta cgtccctttt tgaaggcagg cccttcgcgg ctccccagat cagtccagcc
 1380
 tgtgtcggac ccgatgacta agcacacagg aacccataac tgagctgcgg aagagccaga
 1440
 agccgcc
 1447

<210> 6102
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 6102
 Met Ala Leu Asn Asn Val Ser Leu Ser Ser Gly Asp Gln Arg Ser Arg
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 Val Ala Tyr Arg Ser Ser His Gly Asp Leu Arg Pro Arg Ala Ser Ala
 20 25 30
 Leu Ala Met Val Ser Gly Asp Gly Phe Leu Val Ser Arg Pro Glu Ala
 35 40 45
 Ile His Leu Gly Pro Arg Gln Ala Val Arg Pro Ser Val Arg Ala Glu
 50 55 60
 Ser Arg Arg Val Asp Gly Gly Arg Ser Pro Arg Glu Pro Asp Gly
 65 70 75 80
 Arg Gly Arg Ser Arg Gln Ala Arg Phe Ser Pro Tyr Pro Ile Pro Ala
 85 90 95
 Val Glu Pro Asp Leu Leu Arg Ser Val Leu Gln Gln Arg Leu Ile Ala
 100 105 110
 Leu Gly Gly Val Ile Ala Ala Arg Ile Ser Val
 115 120

<210> 6103
 <211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

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120
agaacctatg cctttagtcaa gaagattggg cagtccccag tgagagtctt gaaggagatt
180
gacggcttcg tcctgaaccg cctgcagttac gccgtcatca gtgaggcctg gagactggtg
240
gaggaagaaa tagtatctcc tagcgaccta gacctggtca tgtcagacgg gctgggcatg
300
cggtacgctg
309

<210> 6104

<211> 71

<212> PRT

<213> Homo sapiens

<400> 6104

Glu Thr Ala Pro Ala Thr Met Asp Arg Thr Tyr Ala Leu Met Lys Lys
1 5 10 15
Ile Gly Gln Ser Pro Val Arg Val Leu Lys Glu Ile Asp Gly Phe Val
20 25 30
Leu Asn Arg Leu Gln Tyr Ala Val Ile Ser Glu Ala Trp Arg Leu Val
35 40 45
Glu Glu Glu Ile Val Ser Pro Ser Asp Leu Asp Leu Val Met Ser Asp
50 55 60
Gly Leu Gly Met Arg Tyr Ala
65 70

<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

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caggggccag aaccggggat gcccccaac cctatgaact caacacagcc atcaactgca
120
ggatgaagt ggtgtctccc cttccatctg ctctgcaggg gtccctcagg ctccctatca
180
gccccctccag ctgcctcagt tatctctgca ccccatctt ctcctcccg acatcgcaaa
240
cgtcgcagga ctccagcaa gtcggaggca gggcttaggg gtggaggcca gggttccaag
300
gaaaagggcc gagggagttg gggaggccgc caccaccacc accacccact gcctgcagca
360
ggcttcaaaa agcaacagcg caagttccag tatggaaatt attgcaaata ctatgggtac
420

cgcaatcctt cctgtgagga tgggcgcctt cgggtgtga agcctgagtg gtttcggggc
480
cgggacgtcc tagatctggg ctgcaatgtg gccatctga ccctgagcat tgccctgcaag
540
tggggccccgt cccgcatggt gggcctggat atcgattccc ggctcatcca ttctgcccgc
600
caaaacatcc gacactaccc ttccgaggag ctgcgtctcc cacccagac tttggaaggg
660
gaccgggggg cagagggtga ggaagggacc accaccgttc gaaagaggag ctgcttccca
720
gcctcgctga ctgccagccg gggtcccatc gctgcccccc aagtgcctt ggatggagcg
780
gacacatcag tcttcccaa caatgttgc ttcgtcacgg gtaattatgt gctggatcga
840
gatgacctgg tggaggccca aacacctgag tatgatgtgg tgctctgcct cagcctcacc
900
aagtgggtgc atctgaactg gggagacgag ggcctgaagc gcatgtttcg ccggatctac
960
cggcacctac gccctggggg catcctggtc ctagagcccc aaccctggtc gtcgtatggc
1020
aagagaaaaga ctcttacaga aacgatctac aagaactact accgaatcca attgaagcca
1080
gagcagttca gttcctaccc gacatcccc gacgtggct tctccagcta tgagcttgc
1140
gccacaccccc acaacaccc tc aaaggcttc cagcgtcctg tgtacctgtt ccacaaggcc
1200
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1260
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1320
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1380
ccctatgcct ctggcacctg cgcagcaagg ctggctgtgc tggagtcaacc atcatcttcc
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1560
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1620
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1680
gggaggcact caggtactgt gaaaatcctt cccttgccc tccccagtg ggagaggggg
1740
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1800
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
1846

<210> 6106
<211> 405
<212> PRT
<213> Homo sapiens

<400> 6106

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Ala	Ala	Ala	Ala	Gln	Gly	Pro	Glu	Pro	Gly	Met	Pro	Pro	Asn	Pro	Met
				20			25			30					
Asn	Ser	Thr	Gln	Pro	Ser	Thr	Ala	Gly	Met	Lys	Trp	Cys	Leu	Pro	Phe
				35			40			45					
His	Leu	Leu	Cys	Arg	Gly	Pro	Ser	Gly	Ser	Leu	Ser	Ala	Pro	Pro	Ala
				50			55			60					
Ala	Ser	Val	Ile	Ser	Ala	Pro	Pro	Ser	Ser	Ser	Arg	His	Arg	Lys	
65					70			75			80				
Arg	Arg	Arg	Thr	Ser	Ser	Lys	Ser	Glu	Ala	Gly	Ala	Arg	Gly	Gly	
				85			90			95					
Gln	Gly	Ser	Lys	Glu	Lys	Gly	Arg	Gly	Ser	Trp	Gly	Gly	Arg	His	His
				100			105			110					
His	His	His	Pro	Leu	Pro	Ala	Ala	Gly	Phe	Lys	Lys	Gln	Gln	Arg	Lys
				115			120			125					
Phe	Gln	Tyr	Gly	Asn	Tyr	Cys	Lys	Tyr	Tyr	Gly	Tyr	Arg	Asn	Pro	Ser
				130			135			140					
Cys	Glu	Asp	Gly	Arg	Leu	Arg	Val	Leu	Lys	Pro	Glu	Trp	Phe	Arg	Gly
145					150			155			160				
Arg	Asp	Val	Leu	Asp	Leu	Gly	Cys	Asn	Val	Gly	His	Leu	Thr	Leu	Ser
				165			170			175					
Ile	Ala	Cys	Lys	Trp	Gly	Pro	Ser	Arg	Met	Val	Gly	Leu	Asp	Ile	Asp
				180			185			190					
Ser	Arg	Leu	Ile	His	Ser	Ala	Arg	Gln	Asn	Ile	Arg	His	Tyr	Leu	Ser
				195			200			205					
Glu	Glu	Leu	Arg	Leu	Pro	Pro	Gln	Thr	Leu	Glu	Gly	Asp	Pro	Gly	Ala
				210			215			220					
Glu	Gly	Glu	Gly	Thr	Thr	Val	Arg	Lys	Arg	Ser	Cys	Phe	Pro		
225					230			235			240				
Ala	Ser	Leu	Thr	Ala	Ser	Arg	Gly	Pro	Ile	Ala	Ala	Pro	Gln	Val	Pro
				245			250			255					
Leu	Asp	Gly	Ala	Asp	Thr	Ser	Val	Phe	Pro	Asn	Asn	Val	Val	Phe	Val
				260			265			270					
Thr	Gly	Asn	Tyr	Val	Leu	Asp	Arg	Asp	Asp	Leu	Val	Glu	Ala	Gln	Thr
				275			280			285					
Pro	Glu	Tyr	Asp	Val	Val	Leu	Cys	Leu	Ser	Leu	Thr	Lys	Trp	Val	His
				290			295			300					
Leu	Asn	Trp	Gly	Asp	Glu	Gly	Leu	Lys	Arg	Met	Phe	Arg	Arg	Ile	Tyr
				305			310			315			320		
Arg	His	Leu	Arg	Pro	Gly	Gly	Ile	Leu	Val	Glu	Pro	Gln	Pro	Trp	
				325			330			335					
Ser	Ser	Tyr	Gly	Lys	Arg	Lys	Thr	Leu	Thr	Glu	Thr	Ile	Tyr	Lys	Asn
				340			345			350					
Tyr	Tyr	Arg	Ile	Gln	Leu	Lys	Pro	Glu	Gln	Phe	Ser	Ser	Tyr	Leu	Thr
				355			360			365					
Ser	Pro	Asp	Val	Gly	Phe	Ser	Ser	Tyr	Glu	Leu	Val	Ala	Thr	Pro	His
				370			375			380					
Asn	Thr	Ser	Lys	Gly	Phe	Gln	Arg	Pro	Val	Tyr	Leu	Phe	His	Lys	Ala
				385			390			395			400		
Arg	Ser	Pro	Ser	His											
				405											

<210> 6107
<211> 896
<212> DNA
<213> Homo sapiens

<400> 6107
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120
tggatgtcaa ggagatgctc aaggctggc tcaacaccac ccccagctcc agcctcccc
180
gtggagtc cccgaccttc acccgccctt tcagccttcatcattacc ctctgatgga
240
tgggggagtt cagttggctc ggggttgccct tggcctgcca ccaggtggtc cacatgcccc
300
agggtggagga cgatgtgtc gcctgctgac acaatagcgc ccaggagctg gttgttaccg
360
ctgtctgcta ctaggtttaga gagccaagct aggaccaagg ctagaatcag caccaccaca
420
cctgccacca ccatcacctc attaccacca ccctcaatga gggtgacatc agtgacccccc
480
ttagccgacc ctactcctca ctggccggga caactggtct tatcacggag gctggggcca
540
ggcagccctt cggttcgggt gggcccagac cccagtccaa cgccgaggga ataggaccat
600
ccaaaagcgg aaccttcgccc tcagaaaaag ggtgcgggac ccctcctcac cgtgcggta
660
cggtacggac agggtagatc acaggctgag ggacagagca aagacccctg aggccggaca
720
cctggggtcc tgccggggccc ctccccacga gagttccctg tgtctgtgcc aatcgttttc
780
gtctttcttt gccgcagttt cttttcctgt aaatcatggt taatgacatt aaccttctta
840
ccatcagggg tttagttgtgg ttgtgataaa taattactac cgtttattaag caattg
896

<210> 6108
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6108
Xaa Asn Leu Thr Arg Thr Val Met Arg Pro Gly Leu Gly Gly Arg Gln
1 5 10 15
Gly Leu Ser Ser Asp Leu Arg Gly Ala Ser Gly Leu Leu Pro Ala
20 25 30
Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg
35 40 45
Leu Gly Ser Thr Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
50 55 60
Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
65 70 75 80
Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

85	90	95
Ser Thr Cys Pro Arg Trp Arg Thr Asp Val Ser Pro Ala Asp	Thr Ile	
100	105	110
Ala Pro Arg Ser Trp Leu Leu Pro Leu Ser Ala Thr		
115	120	

<210> 6109
<211> 2087
<212> DNA
<213> *Homo sapiens*

<400> 6109
aggccggaag cgccggaga ccatgttagt agaccctgc gaggtctgag agtcactgga
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gctaccagaa gcatcatggg gccctgggaa gagccagagc tcctggtgtg gcgccccgag
120
ggtagctca gagcctccag tgccctgtgg gctggaggtg aagttggggg ccctggtgct
180
gctgctggtc tcacccctct ctgcagccctg gtgccatct gtgtgctgcg ccggccagga
240
gctaaccatg aaggctcagc ttcccgcag aaagccctga gcctagtaag ctgtttcgcg
300
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360
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480
tcagggccgt cacctctgga ggaaacaagg gctctgctgg gaacagtgaa tggtggcccg
540
cagcattggc atgatggcc aggggtccca caggcgagtg gagccccago aacccctca
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660
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720
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780
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900
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1140
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 1620
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 1680
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 1740
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 1860
 ctgccaaaac attttttaa atacacccga ggagcccaag gggaaaggc aatgcctacc
 1920
 cccagcgtta ttttggga gggagggctg tgcataggga catattctt agaatctatt
 1980
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 2040
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2087

<210> 6110
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 6110
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 20 25 30
 Pro Gly Ala Ala Ala Gly Leu Thr Leu Leu Cys Ser Leu Val Pro Ile
 35 40 45
 Cys Val Leu Arg Arg Pro Gly Ala Asn His Glu Gly Ser Ala Ser Arg
 50 55 60
 Gln Lys Ala Leu Ser Leu Val Ser Cys Phe Ala Gly Gly Val Phe Leu
 65 70 75 80
 Ala Thr Cys Leu Leu Asp Leu Leu Pro Asp Tyr Leu Ala Ala Ile Asp
 85 90 95
 Glu Ala Leu Ala Ala Leu His Val Thr Leu Gln Phe Pro Leu Gln Glu
 100 105 110
 Phe Ile Leu Ala Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile
 115 120 125
 Thr Leu Ala Tyr Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr
 130 135 140
 Arg Ala Leu Leu Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp

145	150	155	160
Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala			
165	170	175	
Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe			
180	185	190	
Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu			
195	200	205	
Leu Cys Leu Ala Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu			
210	215	220	
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly			
225	230	235	240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly			
245	250	255	
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser			
260	265	270	
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu			
275	280	285	
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys			
290	295	300	
Val Ile Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe			
305	310	315	320
Ile Gln Ile			

<210> 6111
<211> 1706
<212> DNA
<213> Homo sapiens

<400> 6111
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120
taacttgcca tttgttcatt cttgtctttg ttgttttca tataatagaa atcccccaa
180
tgttttatat ctttatgtc tttatttgt tttgtttgt ttttgagatg gagttccct
240
cttggccc aggctggagt gnagtggcac agtcteggct cactgcaacc tccacttcct
300
gggttcaagc agttctcggt ccgcagcctc ccaagtagct gggactacag gcatgcgcc
360
ccacgccagg ctaattttt tatttttagt agagatgggg tttcaccatg ttggccgggc
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660
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720

tcccccttcct gtctccactt gcattcaggg gtggctgctg ttctgagaac attagaactg
 780
 ggaagagaga tggagtcaca tggattttg gtgggcatta ttctgaactt tcgtatccaa
 840
 gtttagtcccc ctattccac tgtggcattg ccgttctaag cagttacctg atgcctgctg
 900
 ctgaagagct gctcacagga ggcggcggcg gccctggcac tgccccttgc attaggtctt
 960
 gtgtttgatg tggcttgc aatttactt gtcagaacaa aatatttacg cgttgggttc
 1020
 aggaatttctt tttagctccc catctggctg tgaaattcag gaaacctccc gttgcctagt
 1080
 aatcacccca ttaggtgtta cattgtgaca aagtgcacatc gaccactaag gggccccctt
 1140
 ggtgaccaccgc acacattcac agcagtgtta aaatggcctg cattttggag atgctggctg
 1200
 gccttcagt gcctccagg aagacacatg gccttcctt cttcagatgc ctgaagggag
 1260
 tgctttgagg caggtgatgt gctggagtg tggcggcct ccctctggcc cggggccct
 1320
 ctgtggacct tggctccctc cgtggacctg ggcttcgtgg tgagcactgc agcctccctg
 1380
 ggcattccctt ccagcgccag caccactgca acatataagac ctgagtgcta ttgtatTTT
 1440
 gcttgggtgtg tatgcttttc attgtgtaaa attgctgttc ttttacaat ttaagtgatt
 1500
 gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaaattccaa tgactgtgct
 1560
 gtgggtggag actttatTTT ccaagatgtt tactttctt ttcccccttcc attttggagga
 1620
 gctgtgtcac tcctccccc ccccagtgtct ttgttagtctc tcctatgtca taataaagct
 1680
 acattttctc tgaaaaaaaaaaaa
 1706

<210> 6112
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 6112
 Met Ser Leu Phe Cys Phe Val Leu Phe Leu Arg Trp Ser Phe Pro Leu
 1 5 10 15
 Val Ala Gln Ala Gly Val Xaa Trp His Ser Leu Gly Ser Leu Gln Pro
 20 25 30
 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser
 35 40 45
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe
 50 55 60
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro
 65 70 75 80
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr
 85 90 95
 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100

105

110

<210> 6113
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 6113
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ggtgacgcac tttacggcg cagcgtaagt gcgtgacgct cgtcagtggc ttcagttcac
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acgtggcgcc agcggaggca ggttgatgtg tttgtgttc cttctacagc caatatgaaa
180
aggccctagta agtggggtcg ggaggcgggc gtggagggac ccacgtctgg aagttgctgc
240
agccaccacg acgctttct acggctacgg ctttgtctct gctggtatgg ggggtggagc
300
atacgcgtag gccttggccc tatttcctgg tagaacccgag agttggaagt ccctacggcg
360
atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tgggaaagac
420
taggcttagat ttgcgttaagg aagcagcgtc tgagccaggt ttgaggccca atattttctt
480
tccgtggcca cgtgcagact ggcggcggc agagctgaga atcgccccc agactcagtg
540
ttcctctctt gccttatgtat tcgtgtgtt tgacacgaaag tggttgtcgt tttgtgtctc
600
atacgctgtt gtgtatgatcc ccattctaattt attgtgaggg taagtgcagg gaattttgac
660
tccattctgg atctactgaa tttaattctc tgggatttga aagtagcactg tatgtttgca
720
ttaggcattt cgcatttagac ttaacgttag gtttggtagc caataacaca agaaaaggat
780
ataactccat agtgcgttaa cccagaacta atcattttggg ttaacagatt tgtgtatgt
840
ttctttgttag agttaaagaa agcaagtaaa cgcattgttcc aacagtgcgc ctttaagga ggctttctt
900
caaaaaaagg ttgcagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcggggtcac
960
aagaagccta gaaaaagaccc aggagttcca aacagtgcgc ctttaagga ggctttctt
1020
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac
1080
aggcagaagg aacta
1095

<210> 6114
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6114

Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

1	5	10	15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys			
20	25	30	
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp			
35	40	45	
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu			
50	55	60	
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys			
65	70	75	80
Leu Asp Arg Gln Lys Glu Leu			
85			

<210> 6115
<211> 411
<212> DNA
<213> Homo sapiens

<400> 6115
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120
actgtggcgt cccagggcgg tggagggagc aacttcgggg gcacgtcctc gttaatcccg
180
tggaggacac tgaccctgta ccccacccctc gaggccagaa gtcggttcct ttgggggaac
240
tgaggggcga gagcaactcgc cccctgact tgcaaagttg gcgtcttac ttggcctccg
300
ggattctcgcatggcgtgt ctccaggctg ctgatggca agacagatgt gccaggtcca
360
gaatgaacctt gagaagagtt tgcgtccatt cctgaatcac cttatactag t
411

<210> 6116
<211> 129
<212> PRT
<213> Homo sapiens

<400> 6116
Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
1 5 10 15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
20 25 30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
35 40 45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
50 55 60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
65 70 75 80
Leu Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
85 90 95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala
100 105 110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

Arg 115 120 125

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<210> 6117  
<211> 962  
<212> DNA  
<213> Homo sapiens
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<400> 6117
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60
gtggaagacg gagaggaaac ctgcgcctcg gcctctcaact ccggggagagctc aggtctcaag
120
tcggggaggcg acaagatgtt ctcccctcaag aagtggAACG cggtggccat gtggagctgg
180
gacgtggagt gcgatacgtg cgccatctgc agggtccagg tgatggatgc ctgtcttaga
240
tgtcaagctg aaaacaaaaca agaggactgt gttgtggctc ggggagaatg taatcattcc
300
ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag
360
caggactggg tggtccaaag aatcgccaaa tgagagtgg tagaaggctt cttagcgcag
420
ttgttcagag ccctggtgga tcttgttaatc cagtgcctta caaaggctag aacactacag
480
gggatgaatt ctcaaatacg gagccgatgg atctgtggtc ctttggact catcaaagcc
540
ttggtttagc atttgtcag ttttatctc agaaattctc tgcgattaag aagataattt
600
attaaagggtg gtccttccta cctctgtggt gtgtgtcgcg cacacagctt agaagtgcata
660
taaaaaagga aagagctcca aattgaatca ctttataat ttacccattt ctatacaaca
720
ggcagtggaa gcagttcag agaactttt gcatgcttat gggtgatcag ttaaaaaaaga
780
atgttacagt aacaataaa gtgcagtttta aaacccaaact cttactctta atttgttcct
840
aatacgtatt tttggcaggg agagggAACG gtccatgaaa tctttatgtg atataaggat
900
tttaagtttgc ggcagtgaa cagggtaat aaaatthaac tttttagcat aaaaaaaaaaa
960
aa
962

<210> 6118
<211> 113
<212> PRT
<213> *Homo sapiens*

<400> 6118
Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
1 5 10 15
Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

20	25	30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp		
35	40	45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Asp Ala Cys Leu Arg Cys		
50	55	60
Gln Ala Glu Asn Lys Gln Glu Asp Cys Val Val Val Trp Gly Glu Cys		
65	70	75
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn		
85	90	95
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly		
100	105	110

Lys

<210> 6119
<211> 375
<212> DNA
<213> Homo sapiens

<400> 6119
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cccccacacc ccacacggac tgcacggaaa tatcacagta accatctctc agtcacagcg
120
tggcccccaca gaactcatgc ctgcttgctt taaacccacc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtcctctgtc
240
tctgcctctc tcttgccccct acccaactggc tgagcatgtg tgcctccaaac ggccctgcaa
300
ggtgtgctgc cctgttcttt ctgggctctg tcaaggaatc aaactgcttc tgttatgtga
360
tgtgtcatgt tgtgc
375

<210> 6120
<211> 118
<212> PRT
<213> Homo sapiens

<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1 5 10 15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
20 25 30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
35 40 45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
50 55 60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65 70 75 80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
85 90 95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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ttgttaaacat tgatttgaat gatgacaaca tttgcagtgt ttgtaaactg ggaacagaca
120
aagaaaacact ctccttctgc cacattgtt ttgagctaaa tattgagggg gtaccaaagt
180
ctgatctctt gcacacccaa tcattaaggg gccataaaga ctgcttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agcttcaaa aagtacttat gaagaagtta
300
aaaccatttt gagtaagaag ataaactgga ttgtcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcatcagc
420
cagaagaaaa attactccca cagtttgagt cccaaagtacc aaaatattct gcaaaatgga
480
tagatggaag tgcaggtggc atctctaact gtacacaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcaggtgc cactttatgt cgtaacagtg
600
tattgtggcc tcatagtcac aaccaggcac agaaaaaaaaga agagacaatc tctagtcag
660
aggctaattgt ccagacccag catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactcacca agtgcaagaa aaagattttt tggcctcaca gctccatgtc cgccacgttg
780
ccatcgaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaacag
840
gaatgaagtc gcacacctacc ataaacaact gacctaaaca gacttacttc gtatgccctg
900
ccctttatttgc tctcccaga catgcaaact ttgaagaagt ttgaagaaaat ttgtggtccg
960
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1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

1	5	10	15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe			
20	25	30	
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp			
35	40	45	
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys			
50	55	60	
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys			
65	70	75	80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp			
85	90	95	
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys			
100	105	110	
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu			
115	120	125	
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala			
130	135	140	
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg			
145	150	155	160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln			
165	170	175	
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser			
180	185	190	
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala			
195	200	205	
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu			
210	215	220	

<210> 6123
<211> 900
<212> DNA
<213> Homo sapiens

<400> 6123
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ggaggcggag gttgcgtga gctgagatcg caccattgca ctccagcctg ggcaacaaga
120
gcaaaacaac aagagaaaaaa aaaggaagct gccctctgcc caaaaacccac gtcgaggtcc
180
ccaaacctgg gacccttagg tctttctca cttagcgtgc ccaaccttct cctggcagga
240
aacaaggctc caggtctgct tccccgcaaa ggactataca tggcaaatga cttaaagctc
300
ctgagacacc atctccagat tcccatccac ttcccaagg atttcttgc tgcgtatgctt
360
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420
atgctggaga aagcgccccg ggagctgtgg atgcgcgtct ggtcaagggt gagtgtgggg
480
ctctggaaat cctctggag gaccttggat gacttctga cttccccag gcacgttttc
540
agggtcatga tcctgcccccc gcccggggga tctactgtcc tcccaagtac accccctctcc
600

ccgcaccgcc ttcctgtgt cttctttct tccccagaatg aagacatcac cgagccgcag
 660
 agcatcctgg cggctgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg
 720
 gaaaagatcg caacgc当地 ggtgaagaac cagctcaagg agaccactga ggcagcctgc
 780
 agatacggag cctttggct gcccattcacc gtggcccatg tggatggcca aaccacatg
 840
 ttatttgct ctgaccggat ggagctgctg ggcacactgc tggagagagaa gtggatggc
 900

<210> 6124
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 6124
 Xaa His Ala Cys Ile Pro Gln Leu Leu Gly Arg Leu Arg Arg Glu Asn
 1 5 10 15
 Arg Leu Asn Pro Gly Gly Gly Cys Gly Glu Leu Arg Ser His His
 20 25 30
 Cys Thr Pro Ala Trp Ala Thr Arg Ala Lys Gln Gln Glu Lys Lys Lys
 35 40 45
 Glu Ala Ala Leu Cys Pro Lys Pro Thr Ser Arg Ser Pro Asn Leu Gly
 50 55 60
 Pro Leu Gly Leu Phe Ser Leu Ser Val Pro Asn Leu Leu Ala Gly
 65 70 75 80
 Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly Leu Tyr Met Ala Asn
 85 90 95
 Asp Leu Lys Leu Leu Arg His His Leu Gln Ile Pro Ile His Phe Pro
 100 105 110
 Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly Ser Leu Ser Ala Met
 115 120 125
 Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro Glu Met Leu Glu Lys
 130 135 140
 Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser Arg Val Ser Val Gly
 145 150 155 160
 Leu Trp Glu Ser Ser Gly Arg Thr Leu Asp Asp Phe Leu Thr Phe Pro
 165 170 175
 Arg His Val Phe Arg Val Met Ile Leu Pro Pro Gly Gly Ser Thr
 180 185 190
 Val Leu Pro Val Thr Pro Leu Ser Pro His Arg Leu Pro Ala Val Phe
 195 200 205
 Ser Ser Ser Gln Asn Glu Asp Ile Thr Glu Pro Gln Ser Ile Leu Ala
 210 215 220
 Ala Ala Glu Lys Ala Gly Met Ser Ala Glu Gln Ala Gln Gly Leu Leu
 225 230 235 240
 Glu Lys Ile Ala Thr Pro Lys Val Lys Asn Gln Leu Lys Glu Thr Thr
 245 250 255
 Glu Ala Ala Cys Arg Tyr Gly Ala Phe Gly Leu Pro Ile Thr Val Ala
 260 265 270
 His Val Asp Gly Gln Thr His Met Leu Phe Gly Ser Asp Arg Met Glu
 275 280 285
 Leu Leu Ala His Leu Leu Gly Glu Lys Trp Met Gly

290

295

300

<210> 6125

<211> 468

<212> DNA

<213> Homo sapiens

<400> 6125

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 atgaaaacagg acttagagga tgccagtaac aaggcggagg aggagagggc ccgcctggag
 120
 ggagaattga aggggctgca ggagcaaata gcagaaacca aagccccgt tatcacgcag
 180
 cagcatgatc gggcccaaga gcagagtgac catgccttga tgctgcgtga gctccagaag
 240
 ctgctgcagg aggagaggac ccagcgcag gacttggagc ttaggttaga agagacccga
 300
 gaagccctgg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc
 360
 aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag
 420
 aagaatcagc cagacccccc gctgcaagaa cttcaggaag aggccgcc
 468

<210> 6126

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6126

Xaa	Thr	Val	Thr	Gln	Glu	Lys	Ser	Arg	Met	Glu	Ala	Ser	Tyr	Leu	Ala
1				5					10				15		
Asp	Lys	Lys	Met	Lys	Gln	Asp	Leu	Glu	Asp	Ala	Ser	Asn	Lys	Ala	
	20					25				30					
Glu	Glu	Glu	Arg	Ala	Arg	Leu	Glu	Gly	Glu	Leu	Lys	Gly	Leu	Gln	Glu
	35					40				45					
Gln	Ile	Ala	Glu	Thr	Lys	Ala	Arg	Leu	Ile	Thr	Gln	Gln	His	Asp	Arg
	50				55				60						
Ala	Gln	Glu	Gln	Ser	Asp	His	Ala	Leu	Met	Leu	Arg	Glu	Leu	Gln	Lys
	65				70				75			80			
Leu	Leu	Gln	Glu	Glu	Arg	Thr	Gln	Arg	Gln	Asp	Leu	Glu	Leu	Arg	Leu
	85					90			95						
Glu	Glu	Thr	Arg	Glu	Ala	Leu	Ala	Gly	Arg	Ala	Tyr	Ala	Ala	Glu	Gln
	100				105					110					
Met	Glu	Gly	Phe	Glu	Leu	Gln	Thr	Lys	Gln	Leu	Thr	Arg	Glu	Val	Glu
	115					120				125					
Glu	Leu	Lys	Ser	Glu	Leu	Gln	Ala	Ile	Arg	Asp	Glu	Lys	Asn	Gln	Pro
	130					135				140					
Asp	Pro	Arg	Leu	Gln	Glu	Leu	Gln	Glu	Glu	Ala	Ala				
	145				150				155						

<210> 6127

<211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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120
cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgcctgcct
180
cacgcccattt cattgaaccc taatgagatc cagcgggccc tggtgcaatg caaggaacag
240
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300
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360
gcagggtggctt catccacago ccgtgaaggg gctacaagct gtatgtccag tgggatcagg
420
gcagggtgggg aagctggcg gggtatgcctt gagggttagag ggggcccagg gactgagccg
480
gttacagtgg cagcggcagc agtgcacagca gcagccacag tggtgccctt catatcggt
540
gggtcttagtt tataccccggg tccaggactt gggcatggcc actccctgg cctgcaccc
600
tacactgctc tacagccccca cctgcctgtt agccctcaatc atctcaatca cccagctcac
660
cctgcccacc ccatgcctca catgccccgg cctgcccgtt tccctgtgcc cagctctgca
720
tacccacagg gtgtgcattt tgcatttcata ggggttcagt acccttattt agtgcactt
780
ccctcaatttgc tggccactgc tgggttttgc cccgttcattt ccatggcacc catcacagta
840
catccctacc acacagagcc agggcttcca ctgccccacca gtgtggccgt tgagttgtgg
900
ggccaggaa cagtgcacat tggccatcca gcatccacgt ttccagccat ccaaggtgcc
960
tcactgccttgc ccctgaccac acagccacgc cctctggta gcggagggtt tccaccggcc
1020
gaggaggaga cacacagtca gccagtcaat cccacagcc tgcaccacat gcatgtgcc
1080
taccgtgtcg gaatgtggc actggagatg ctgggtcgcc gggcacacaa cgatcaccc
1140
aacaacttcc cccgtcccccc cccctacact gatgtgtca aatgggttgcattt ggggtggca
1200
gcaaagctgg gaggtaacta cgtgcaccag ttctgtgtgg gggcagccaa ggggtgtcg
1260
agcccgtttgc tgctgcaggat gatgtcatg gagacgtgc agcggctgag tcccgctcat
1320
gccccacaacc acctgcgtgc cccggccatttcc caccaactgg tgcagcgtcg ccagcaggca
1380
tacatgcagt acatccacca ccgtttgattt cacctgactc ctgcggacta cgacgacttt
1440
gtgaatgcga tccggagtgc ccgcagcgcc ttctgcctga cgcccatggg catgtatgcag
1500

ttcaacgaca tcctacagaa cctcaagcgc agcaaacaga ccaaggagct gtggcagcgg
 1560
 gtctcaactcg agatggccac cttctcccc tgagtcttcc acccttaggg tcctatacag
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 1680
 gatcatcctc actcagttcc ctggtagcac agactgacag ctgctttgg gctatagctt
 1740
 gggccaaga tgtctcacac cctagaagcc tagggctggg ggagacagcc ctgtctggga
 1800
 gggggcgttg ggtggcctct ggtatttatt tggcatttat aaatatataa actcctttt
 1860
 tactctagtc gacctggcc tttccctct ttccaaattt
 1900

<210> 6128
 <211> 530
 <212> PRT
 <213> Homo sapiens

<400> 6128
 Val Ser Trp Ile Thr Gly Gln Ala Xaa Glu Ile Gly Ser Xaa Ser Leu
 1 5 10 15
 Thr Ile Leu Val Glu Cys Trp Asp Gly His Leu Thr Pro Pro Glu Val
 20 25 30
 Ala Ser Leu Ala Asp Arg Ala Ser Arg Ala Arg Asp Ser Asn Met Val
 35 40 45
 Arg Ala Ala Ala Glu Leu Ala Leu Ser Cys Leu Pro His Ala His Ala
 50 55 60
 Leu Asn Pro Asn Glu Ile Gln Arg Ala Leu Val Gln Cys Lys Glu Gln
 65 70 75 80
 Asp Asn Leu Met Leu Glu Lys Ala Cys Met Ala Val Glu Glu Ala Ala
 85 90 95
 Lys Gly Gly Val Tyr Pro Glu Val Leu Phe Glu Val Ala His Gln
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 Trp Phe Trp Leu Tyr Glu Gln Thr Ala Gly Ser Ser Thr Ala Arg
 115 120 125
 Glu Gly Ala Thr Ser Cys Ser Ala Ser Gly Ile Arg Ala Gly Gly Glu
 130 135 140
 Ala Gly Arg Gly Met Pro Glu Gly Arg Gly Gly Pro Gly Thr Glu Pro
 145 150 155 160
 Val Thr Val Ala Ala Ala Val Thr Ala Ala Ala Thr Val Val Pro
 165 170 175
 Val Ile Ser Val Gly Ser Ser Leu Tyr Pro Gly Pro Gly Leu Gly His
 180 185 190
 Gly His Ser Pro Gly Leu His Pro Tyr Thr Ala Leu Gln Pro His Leu
 195 200 205
 Pro Cys Ser Pro Gln Tyr Leu Thr His Pro Ala His Pro Ala His Pro
 210 215 220
 Met Pro His Met Pro Arg Pro Ala Val Phe Pro Val Pro Ser Ser Ala
 225 230 235 240
 Tyr Pro Gln Gly Val His Pro Ala Phe Leu Gly Ala Gln Tyr Pro Tyr
 245 250 255
 Ser Val Thr Pro Pro Ser Leu Ala Ala Thr Ala Val Ser Phe Pro Val

260	265	270
Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly		
275	280	285
Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr		
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Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala		
305	310	315
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly		
325	330	335
Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His		
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Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu		
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Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser		
370	375	380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala		
385	390	395
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala		
405	410	415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr		
420	425	430
Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro		
435	440	445
Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr		
450	455	460
Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe		
465	470	475
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met		
485	490	495
Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys		
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Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe		
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 <211> 2012
 <212> DNA
 <213> Homo sapiens

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2012

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<212> PRT
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Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val
50 55 60
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
65 70 75 80
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
85 90 95
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
100 105 110
Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu
115 120 125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
130 135 140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
145 150 155 160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp
165 170 175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
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Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
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Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg
210 215 220
Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg
225 230 235 240
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr
245 250 255
Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr
260 265 270
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
275 280 285
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys
290 295 300
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr
305 310 315 320
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val
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<211> 3526
<212> DNA
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5309

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 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 6132
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 35 40 45
 Val Pro Ile Val Ile Gln Asp Asp Ser Leu Pro Ala Gly Pro Pro Pro
 50 55 60
 Gln Ile Arg Ile Leu Lys Arg Pro Thr Ser Asn Gly Val Val Ser Ser
 65 70 75 80
 Pro Asn Ser Thr Ser Arg Pro Thr Leu Pro Val Lys Ser Leu Ala Gln
 85 90 95
 Arg Glu Ala Glu Tyr Ala Glu Ala Arg Lys Arg Ile Leu Gly Ser Ala
 100 105 110
 Ser Pro Glu Glu Glu Gln Glu Lys Pro Ile Leu Asp Arg Ser Ser Ser
 115 120 125
 Asp Leu Leu Pro Phe Arg Pro Thr Arg Ile Ser Gln Pro Glu Asp Ser
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 <212> DNA
 <213> Homo sapiens

<400> 6133

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 <212> PRT
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 Arg Gly Leu Val Pro Thr Asp Tyr Val Glu Ile Leu Pro Ser Asp Gly
 50 55 60
 Lys Asp Gln Phe Ser Cys Gly Asn Ser Val Ala Asp Gln Ala Phe Leu
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 Asp Ser Leu Ser Ala Ser Thr Ala Gln Ala Ser Ser Ser Ala Ala Ser
 85 90 95
 Asn Asn His Gln Val Gly Ser Gly Asn Asp Pro Trp Ser Ala Trp Ser
 100 105 110
 Ala Ser Lys Ser Gly Asn Trp Glu Ser Ser Glu Gly Trp Gly Ala Gln

115	120	125
Pro Glu Gly Ala Gly Ala Gln Arg Asn Thr Asn Thr	Pro Asn Asn Trp	
130	135	140
Asp Thr Ala Phe Gly His Pro Gln Ala Tyr Gln Gly Pro Ala Thr Gly		
145	150	155
Asp Asp Asp Asp Trp Asp Glu Asp Trp Asp Gly Pro Lys Ser Ser Ser		160
165	170	175
Tyr Phe Lys Asp Ser Glu Ser Ala Asp Ala Gly Gly Ala Gln Arg Gly		
180	185	190
Asn Ser Arg Ala Ser Ser Ser Met Lys Ile Pro Leu Asn Lys Phe		
195	200	205
Pro Gly Phe Ala Lys Pro Gly Thr Glu Gln Tyr Leu Leu Ala Lys Gln		
210	215	220
Leu Ala Lys Pro Lys Glu Lys Ile Pro Ile Ile Val Gly Asp Tyr Gly		
225	230	235
Pro Met Trp Val Tyr Pro Thr Ser Thr Phe Asp Cys Val Val Ala Asp		240
245	250	255
Pro Arg Lys Gly Ser Lys Met Tyr Gly Leu Lys Ser Tyr Ile Glu Tyr		
260	265	270
Gln Leu Thr Pro Thr Asn Thr Asn Arg Ser Val Asn His Arg Tyr Lys		
275	280	285
His Phe Asp Trp Leu Tyr Glu Arg Leu Leu Val Lys Phe Gly Ser Ala		
290	295	300
Ile Pro Ile Pro Ser Leu Pro Asp Lys Gln Val Thr Gly Arg Phe Glu		
305	310	315
Glu Glu Phe Ile Lys Met Arg Met Glu Arg Leu Gln Ala Trp Met Thr		
325	330	335
Arg Met Cys Arg His Pro Val Ile Ser Glu Ser Glu Val Phe Gln Gln		
340	345	350
Phe Leu Asn Phe Arg Asp Glu Lys Glu Trp Lys Thr Gly Lys Arg Lys		
355	360	365
Ala Glu Arg Asp Glu Leu Ala Gly Val Met Ile Phe Ser Thr Met Glu		
370	375	380
Pro Glu Ala Pro Asp Leu Asp Leu Val Glu Ile Glu Gln Lys Cys Glu		
385	390	395
Ala Val Gly Lys Phe Thr Lys Ala Met Asp Asp Gly Val Lys Glu Leu		400
405	410	415
Leu Thr Val Gly Gln Glu His Trp Lys Arg Cys Thr Gly Pro Leu Pro		
420	425	430
Lys Glu Tyr Gln Lys Ile Gly Lys Ala Leu Gln Ser Leu Ala Thr Val		
435	440	445
Phe Ser Ser Ser Gly Tyr Gln Gly Glu Thr Asp Leu Asn Asp Ala Ile		
450	455	460
Thr Glu Ala Gly Lys Thr Tyr Glu Glu Ile Ala Ser Leu Val Ala Glu		
465	470	475
Gln Pro Lys Lys Asp Leu His Phe Leu Met Glu Cys Asn His Glu Tyr		480
485	490	495
Lys Gly Phe Leu Gly Cys Phe Pro Asp Ile Ile Gly Thr His Lys Gly		
500	505	510
Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr Ser Lys		
515	520	525
Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser Ile Met		
530	535	540
Ser Tyr Ala Leu Gln Ala Glu Met Asn His Phe His Ser Asn Arg Ile		

545	550	555	560
Tyr Asp Tyr Asn Ser Val Ile Arg Leu Tyr Leu Glu Gln Gln			
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Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe			
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Pro Val Met			
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<211> 526			
<212> DNA			
<213> Homo sapiens			
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120			
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180			
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240			
caagaaaaaga cttgatggaa tctacatgga tgcagcctga aagattgagc ccacaagttc			
300			
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360			
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420			
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480			
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526			
<210> 6136			
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<212> PRT			
<213> Homo sapiens			
<400> 6136			
Met Ser Leu Ser Glu Pro Pro Gln Pro Leu Ala Arg Lys Asp Leu Met			
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Glu Ser Thr Trp Met Gln Pro Glu Arg Leu Ser Pro Gln Val His His			
20	25	30	
Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His			
35	40	45	
Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser			
50	55	60	
Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr			
65	70	75	80
Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala			
85	90	95	
Leu Val Lys Pro Ser Ala Ser Gln Tyr			
100	105		

<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

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120 acgtggcgcc agcggaggca ggttgctgtg tttgtgcttc cttctacagc caatatgaaa
180 aggccctaagt taaagaaaagc aagtaaaacgc atgacctgcc ataagcggta taaaatccaa
240 aaaaagggttc gagaacatca tcgaaaatta agaaaggagg ctaaaaagca gggtcacaag
300 aaggcttagga aagacccagg agttccaaac agtgctccct ttaaggaggc tcttcttagg
360 gaagctgagc taaggaaaca gaggcttcaa gaactaaaac agcagcagaa acttgacagg
420 cagaaggaac tagaaaaagaa aagaaaactt gaaactaatac ctgatattaa gnccatcaaa
480 ttttgttccn ntatggaaaa ggagtttggg ctttgcaaaa ctgagaacaa agccaagtcg
540 ggccaaacaga attcaaagaa gctgtactgc caagaactta aaaaggttat tgaaggctcc
600 gatgttgtcc tagaggtgtt ggatgccaga gatcctcttgc ttgcagatg tcctcaggt
660 gaagaggcca ttgtccagag tggacagaaa aagctggtaat ttatattaaa taaatcagat
720 ctggtaacaa aggagaattt ggagagctgg ctaaattatt tgaagaaaaga attgccaaca
780 gtggtgttca gagcctcaac aaaaccaaag gataaaggga agataaccaa gcgtgtgaag
840 gccaaagaaga atgctgtcc attcagaagt gaagtctgtt ttggggaaaga gggcccttgg
900 aaacttcttgc gaggtttca ggaaacttgc agccaaagcca ttcgggttgg agtaattgg
960 ttcccaaattt tgaaaatggg cagcattatc aatagcttaa aacaagaaca gatgtgtat
1020 gttgggtgtat ccatggggct tacaaggagc atgcaagttt tcccccttggaa caaacagatc
1080 acaatcatag atagtccgag cttcatcgta tctccactta attcctccctc tgccgttgc
1140 ctgcgaagtc cagcaagtat tgaagtagta aaaccgatgg aggctgccag tgccatcctt
1200 tccccaggctg atgctcgaca ggttagtactg aaatatactg tcccaggctt caggaattct
1260 ctggaaatttt ttactgtgtt tgctcagaga agaggtatgc accaaaaagg tggaaatccca
1320 aatgttgaag gtgctgccaactgctgtgg tctgagtgaa caggtgcctc attagcttac
1380 tattggccatc cccctacatc ttggactccct cctccatatt ttaatgagag tattgtggta
1440

gacatgaaaa gcggttcaa tctgaaagaa ctggaaaaga acaatgcaca gagcataaga
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 1560
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 1620
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 1740
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 1800
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 1860
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 1920
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 1980
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 2040
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 2073

<210> 6138
 <211> 550
 <212> PRT
 <213> Homo sapiens

<400> 6138
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 Arg Lys Glu Ala Lys Lys Gln Gly His Lys Lys Pro Arg Lys Asp Pro
 35 40 45
 Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Arg Glu Ala
 50 55 60
 Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Lys Leu
 65 70 75 80
 Asp Arg Gln Lys Glu Leu Glu Lys Lys Arg Lys Leu Glu Thr Asn Pro
 85 90 95
 Asp Ile Lys Xaa Ile Lys Cys Gly Thr Xaa Met Glu Lys Glu Phe Gly
 100 105 110
 Leu Cys Lys Thr Glu Asn Lys Ala Lys Ser Gly Lys Gln Asn Ser Lys
 115 120 125
 Lys Leu Tyr Cys Gln Glu Leu Lys Lys Val Ile Glu Ala Ser Asp Val
 130 135 140
 Val Leu Glu Val Leu Asp Ala Arg Asp Pro Leu Gly Cys Arg Cys Pro
 145 150 155 160
 Gln Val Glu Glu Ala Ile Val Gln Ser Gly Gln Lys Lys Leu Val Leu
 165 170 175
 Ile Leu Asn Lys Ser Asp Leu Val Pro Lys Glu Asn Leu Glu Ser Trp
 180 185 190
 Leu Asn Tyr Leu Lys Lys Glu Leu Pro Thr Val Val Phe Arg Ala Ser

195	200	205
Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys		
210	215	220
Lys Asn Ala Ala Pro Phe Arg Ser Glu Val Cys Phe Gly Lys Glu Gly		
225	230	235
Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile		
245	250	255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ser Ile Ile		
260	265	270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly		
275	280	285
Leu Thr Arg Ser Met Gln Val Val Pro Leu Asp Lys Gln Ile Thr Ile		
290	295	300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala		
305	310	315
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu		
325	330	335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu		
340	345	350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val		
355	360	365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val		
370	375	380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu		
385	390	395
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe		
405	410	415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu		
420	425	430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His		
435	440	445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile		
450	455	460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg		
465	470	475
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val		
485	490	495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu		
500	505	510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr		
515	520	525
Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp		
530	535	540
Phe Ser Thr Asp Tyr Val		
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<210> 6139

<211> 2249

<212> DNA

<213> Homo sapiens

<400> 6139

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120 acagacgatg atggccaggc cccggaggct aaggacggca gtccttttag cgccagagtt
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240 atgctgctgg aatctcctat agatccacag cctctcagct tcaaagaacc cccgctcttg
300 ctttgtgttc tgcatccaaa tacgaagctg cgacaggcag aaaggctgtt tgaaaatcaa
360 cttgttggac cggagtcac agcacatatt gggatgtga tttttactgg gacagcagat
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1020 atggccagga taaaaggat gattttaag ggaagctgca ttttttttttgcat gacttttttttgcat
1080 agaccctggat ttttttttttgcat gacttttttttgcat gacttttttttgcat
1140 agtcaagaga cggtgatgaa gtttggcccg cggtagccat tcgtccatgaa actcagcgac
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1620 agtacagtca ttctcttagga ttttttttttgcat gacttttttttgcat gacttttttttgcat
1680

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 1860
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 1920
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 1980
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<210> 6140
 <211> 381
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Leu Leu Leu Gly Val Leu His Pro Asn Thr Lys Leu Arg Gln Ala Glu
 35 40 45
 Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu Ser Ile Ala His Ile
 50 55 60
 Gly Asp Val Met Phe Thr Gly Thr Ala Asp Gly Arg Val Val Lys Leu
 65 70 75 80
 Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe Xaa Phe Gly Pro Xaa
 85 90 95
 Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg Pro Leu Gly Ile
 100 105 110
 Arg Ala Gly Pro Asn Gly Thr Leu Phe Val Ala Asp Ala Tyr Lys Gly
 115 120 125
 Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys Leu Leu Leu Ser
 130 135 140
 Ser Glu Thr Pro Ile Glu Gly Lys Asn Met Ser Phe Val Asn Asp Leu
 145 150 155 160
 Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr Asp Ser Ser Ser
 165 170 175
 Lys Trp Gln Arg Arg Asp Tyr Leu Leu Val Met Glu Gly Thr Asp
 180 185 190
 Asp Gly Arg Leu Leu Glu Tyr Asp Thr Val Thr Arg Glu Val Lys Val
 195 200 205
 Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln Leu Ser Pro Ala

210	215	220
Glu	Asp	Phe
Val	Leu	Val
Ala	Glu	Thr
Met	Asp	Arg
Ile	Arg	Arg
225	230	235
240		
Val	Tyr	Val
Ser	Gly	Leu
Met	Lys	Gly
Gly	Ala	Asp
Leu	Phe	Val
245	250	255
255		
Asn	Met	Pro
Gly	Phe	Pro
Asp	Asn	Ile
Arg	Pro	Arg
Pro	Ser	Ser
Ser	Gly	Gly
260	265	270
270		
Tyr	Trp	Val
Gly	Met	Ser
Thr	Ile	Arg
Pro	Asn	Pro
Gly	Phe	Ser
Phe	Ser	Met
275	280	285
285		
Leu	Asp	Phe
Leu	Ser	Glu
Arg	Pro	Trp
Ile	Lys	Arg
Met	Ile	Phe
290	295	300
295		
Gly	Ser	Cys
Ala	Gly	Cys
Asp	Leu	Leu
Phe	Ser	Gln
Thr	Val	Glu
Met	305	310
310		315
320		
Lys	Phe	Val
Pro	Arg	Tyr
Ser	Leu	Val
Leu	Glu	Leu
Ser	Asp	Ser
Gly	325	330
330		335
335		
Ala	Phe	Arg
Arg	Ser	Leu
His	Asp	Pro
Gly	Leu	Val
Val	340	345
345		350
350		
Ile	Ser	Glu
Val	His	Glu
His	Asp	Gly
Gly	His	Leu
Tyr	Leu	Gly
Ser	Phe	
355	360	365
365		
Arg	Ser	Pro
Phe	Leu	Cys
Arg	Leu	Ser
Leu	Gln	Ala
370	375	380
380		

<210> 6141
 <211> 5651
 <212> DNA
 <213> Homo sapiens

<400> 6141
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 120
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 180
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 420
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 480
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 540
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 600
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 660
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 720
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 780

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840
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1020
atcagcattt atcaagtctt acaggagcat cagcacagag actctgacct gttttgttg
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1140
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1200
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1320
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1380
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1620
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1680
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1740
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1800
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2100
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2160
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2220
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2280
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2340
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2400

ctttgttagt accaaaagta gactgattac actgaggtga ggctacaagg ggtgtgtAAC
2460
cgtgtAACAC gtgaaggcaa tgctcacctc ttctttacca gaacggttct ttgaccagca
2520
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2580
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2640
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2700
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2760
caatcatgtA ctgggaaggc aatttcatac taaactgatt aaataataca tttataatct
2820
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2880
atatctgttt tgctgtAAcA ttGAAGGAAA gaccagactt ttAAAAAAAG agagtttatt
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3000
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<210> 6142
<211> 513
<212> PRT
<213> Homo sapiens

<400> 6142
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35 40 45
Ser Pro Gly Arg Thr Glu Gln Pro Pro Pro Ser Pro Gln Ser Ser Ser
50 55 60
Gly Phe Leu Tyr Arg Arg Leu Lys Thr Gln Glu Lys Arg Glu Met Gln
65 70 75 80
Lys Glu Ile Leu Ser Val Leu Gly Leu Pro His Arg Pro Arg Pro Leu
85 90 95
His Gly Leu Gln Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu
100 105 110
Gln Gln Gln Gln Leu Pro Arg Gly Glu Pro Pro Pro Gly Arg
115 120 125
Leu Lys Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr Asn Ala Leu Ser
130 135 140
Ala Asp Asn Asp Glu Asp Gly Ala Ser Glu Gly Glu Arg Gln Gln Ser
145 150 155 160
Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro
165 170 175
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser
180 185 190
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe
195 200 205
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr
210 215 220
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe
225 230 235 240
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe
245 250 255
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe
260 265 270
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser
275 280 285
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly
290 295 300
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr
305 310 315 320
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly
325 330 335
Val His Val His Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro
340 345 350
Tyr Asp Lys Gln Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val

355	360	365
His Val Arg Thr Thr Arg Ser Ala Ser Ser Arg Arg Arg Gln Gln Ser		
370	375	380
Arg Asn Arg Ser Thr Gln Ser Gln Asp Val Ala Arg Val Ser Ser Ala		
385	390	395
Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala Cys Arg Lys His Glu		400
405	410	415
Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala		
420	425	430
Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro		
435	440	445
Leu Asn Ala His Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu		
450	455	460
Val His Leu Met Asn Pro Glu Tyr Val Pro Lys Pro Cys Cys Ala Pro		
465	470	475
Thr Lys Leu Asn Ala Ile Ser Val Leu Tyr Phe Asn Asp Asn Ser Lys		
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Ile Thr Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Tyr		
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Cys		

<210> 6143
<211> 1137
<212> DNA
<213> Homo sapiens

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240
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780

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<210> 6144
 <211> 141
 <212> PRT
 <213> Homo sapiens

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 Ser Gly Ser Arg Gln Ala Trp Val His Pro Pro Ala Gln Pro Arg Thr
 35 40 45
 Ala Gly Pro Glu Leu Gly Gly Gln Gly Ile Pro Ser Pro Gly Cys Ala
 50 55 60
 Cys Gln Arg Gly Glu Ala Gly Gly Gly Asn Ala Val Leu Pro Gln
 65 70 75 80
 Glu Ser Val Leu Arg Ala Ser Ala Val Gly Arg Gly Ala Glu Gly Pro
 85 90 95
 Gly Ala Leu Thr Arg Ser Gly Ser Gly Ala Ala Ser Ala Leu Val Arg
 100 105 110
 Pro Gly Glu Lys Gly Cys Trp Cys Arg Thr Ala Ser Gly Ala Gly Pro
 115 120 125
 Ser Gly Asp Arg Gly Pro Glu Val Gln Val Pro Gly Gly
 130 135 140

<210> 6145
 <211> 766
 <212> DNA
 <213> Homo sapiens

<400> 6145
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 300

taaggatgga ctggatatta ccatcatcca ccatcctggc taccagatgg aaccttctct
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 420
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 480
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 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 6146
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 35 40 45
 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys
 50 55 60
 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr
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 Ser Lys Gln Lys
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<210> 6147
 <211> 1852
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 6148

<211> 410
<212> PRT
<213> Homo sapiens

<400> 6148

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Ser	Leu	Val	Gln	Glu	Gly	Glu	Trp	Glu	Arg	Ala	Ala	Ala	Val	Ala	Leu
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Phe	Asn	Leu	Asp	Ile	Arg	Arg	Ala	Ile	Gln	Ile	Leu	Asn	Glu	Gly	Ala
					65			70			75				80
Ser	Ser	Glu	Lys	Gly	Asp	Leu	Asn	Leu	Asn	Val	Val	Ala	Met	Ala	Leu
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Ser	Gly	Tyr	Thr	Asp	Glu	Lys	Asn	Ser	Leu	Trp	Arg	Glu	Met	Cys	Ser
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Thr	Leu	Arg	Leu	Gln	Leu	Asn	Asn	Pro	Tyr	Leu	Cys	Val	Met	Phe	Ala
				115				120				125			
Phe	Leu	Thr	Ser	Glu	Thr	Gly	Ser	Tyr	Asp	Gly	Val	Leu	Tyr	Glu	Asn
				130				135				140			
Lys	Val	Ala	Val	Arg	Asp	Arg	Val	Ala	Phe	Ala	Cys	Lys	Phe	Leu	Ser
				145				150			155				160
Asp	Thr	Gln	Leu	Asn	Arg	Tyr	Ile	Glu	Lys	Leu	Thr	Asn	Glu	Met	Lys
					165				170				175		
Glu	Ala	Gly	Asn	Leu	Glu	Gly	Ile	Leu	Leu	Thr	Gly	Leu	Thr	Lys	Asp
				180				185				190			
Gly	Val	Asp	Leu	Met	Glu	Ser	Tyr	Val	Asp	Arg	Thr	Gly	Asp	Val	Gln
				195				200				205			
Thr	Ala	Ser	Tyr	Cys	Met	Leu	Gln	Gly	Ser	Pro	Leu	Asp	Val	Leu	Lys
				210				215				220			
Asp	Glu	Arg	Val	Gln	Tyr	Trp	Ile	Glu	Asn	Tyr	Arg	Asn	Leu	Leu	Asp
				225				230			235				240
Ala	Trp	Arg	Phe	Trp	His	Lys	Arg	Ala	Glu	Phe	Asp	Ile	His	Arg	Ser
					245				250				255		
Lys	Leu	Asp	Pro	Ser	Ser	Lys	Pro	Leu	Ala	Gln	Val	Phe	Val	Ser	Cys
				260				265				270			
Asn	Phe	Cys	Gly	Lys	Ser	Ile	Ser	Tyr	Ser	Cys	Ser	Ala	Val	Pro	His
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Gln	Gly	Arg	Gly	Phe	Ser	Gln	Tyr	Gly	Val	Ser	Gly	Ser	Pro	Thr	Lys
				290				295			300				
Ser	Lys	Val	Thr	Ser	Cys	Pro	Gly	Cys	Arg	Lys	Pro	Leu	Pro	Arg	Cys
				305				310			315				320
Ala	Leu	Cys	Leu	Ile	Asn	Met	Gly	Thr	Pro	Val	Ser	Ser	Cys	Pro	Gly
					325				330				335		
Gly	Thr	Lys	Ser	Asp	Glu	Lys	Val	Asp	Leu	Ser	Lys	Asp	Lys	Leu	
					340				345				350		
Ala	Gln	Phe	Asn	Asn	Trp	Phe	Thr	Trp	Cys	His	Asn	Cys	Arg	His	Gly
					355				360				365		
Gly	His	Ala	Gly	His	Met	Leu	Ser	Trp	Phe	Arg	Asp	His	Ala	Glu	Cys
					370				375				380		
Pro	Val	Ser	Ala	Cys	Thr	Cys	Lys	Cys	Met	Gln	Leu	Asp	Thr	Thr	Gly

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405 410

<210> 6149
<211> 1949
<212> DNA
<213> Homo sapiens

<400> 6149
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<210> 6150
 <211> 508
 <212> PRT
 <213> Homo sapiens

<400> 6150
 Met Pro Lys Gly Gly Cys Pro Lys Ala Pro Gln Gln Glu Glu Leu Pro
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 20 25 30
 Lys Val Ser Leu Thr Lys Thr Pro Lys Leu Glu Arg Asp Gly Gly
 35 40 45
 Lys Glu Val Arg Glu Arg Ala Ser Lys Arg Lys Leu Pro Phe Thr Ala
 50 55 60
 Gly Ala Asn Gly Glu Gln Lys Asp Ser Asp Thr Glu Lys Gln Gly Pro
 65 70 75 80
 Glu Arg Lys Arg Ile Lys Lys Glu Pro Val Thr Arg Lys Ala Gly Leu
 85 90 95
 Leu Phe Gly Met Gly Leu Ser Gly Ile Arg Ala Gly Tyr Pro Leu Ser
 100 105 110
 Glu Arg Gln Gln Val Ala Leu Leu Met Gln Met Thr Ala Glu Glu Ser
 115 120 125
 Ala Asn Ser Pro Val Asp Thr Thr Pro Lys His Pro Ser Gln Ser Thr
 130 135 140
 Val Cys Gln Lys Gly Thr Pro Asn Ser Ala Ser Lys Thr Lys Asp Lys
 145 150 155 160
 Leu Asn Lys Arg Asn Glu Arg Gly Glu Thr Arg Leu His Arg Ala Ala
 165 170 175
 Ile Arg Gly Asp Ala Arg Arg Ile Lys Glu Leu Ile Ser Glu Gly Ala
 180 185 190
 Asp Val Asn Val Lys Asp Phe Ala Gly Trp Thr Ala Leu His Glu Ala

195	200	205
Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly		
210	215	220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp		
225	230	235
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr		
245	250	255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys		
260	265	270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr		
275	280	285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Glu Asp		
290	295	300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp		
305	310	315
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro		
325	330	335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp		
340	345	350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys		
355	360	365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro		
370	375	380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys		
385	390	395
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala		
405	410	415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr		
420	425	430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln		
435	440	445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly		
450	455	460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser		
465	470	475
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp		
485	490	495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys		
500	505	

<210> 6151

<211> 648

<212> DNA

<213> Homo sapiens

<400> 6151

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ggccaggaac atttgggcca ctattgtct tagccctgcc ggcgcctgact ttctctccctc
240

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360
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420
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480
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648

<210> 6152
<211> 130
<212> PRT
<213> Homo sapiens

<400> 6152
Met Arg Thr Lys Pro Gln Arg Pro Arg Ala Thr Arg Ser Tyr Leu Gly
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Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp
20 25 30
Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu
35 40 45
Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Leu Pro Val Ile
50 55 60
Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys
65 70 75 80
Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu
85 90 95
Lys Val Arg Arg Gly Arg Ala Lys Ser Asn Ser Gly Pro Asn Val Pro
100 105 110
Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr
115 120 125
Arg Arg
130

<210> 6153
<211> 1810
<212> DNA
<213> Homo sapiens

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120
cacaaggatg ccgtcacctg tgtgaacttc tctcccttcgg gacacctgtct tgcttccggc
180
tcccagagaca agactgtccg catctggta cccaatgtca aaggtgagtc cactgtgttt
240

cgtgcacaca cagccacagt gaggagtgtc cacttctgca gtgatggcca gtccttcgtg
300
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1810

<210> 6154
<211> 388
<212> PRT
<213> Homo sapiens

<400> 6154
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Ser Gly Xaa Met Asp Ser Cys Leu Met Val Trp His Met Lys Leu Gln
20 25 30
Ser Arg Ala Tyr Arg Phe Thr Gly His Lys Asp Ala Val Thr Cys Val
35 40 45
Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys
50 55 60
Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe
65 70 75 80
Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly
85 90 95
Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala
100 105 110
Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp
115 120 125
Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala
130 135 140
Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys
145 150 155 160
Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
165 170 175
His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val
180 185 190
Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
195 200 205
His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
210 215 220
Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met
225 230 235 240
Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr
245 250 255
Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Gly Ser
260 265 270
Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His
275 280 285
Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser
290 295 300
Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly
305 310 315 320
Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val
325 330 335
Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
340 345 350
Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr
355 360 365
Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

370
Arg Ala Thr Pro
385

<210> 6155
<211> 995
<212> DNA
<213> Homo sapiens

<400> 6155
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180
tattccctt ttctttattc ttgggagggtt cctattgttg tgccaggtcg ttttcactga
240
acgattttta aaggtattca ccagtcccac gtgtgaccgg ttgcattttt actgtgcagg
300
accatcgtga agcctgtggc caaagagttt gatccagaca tggcttagt atctgctgga
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420
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480
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720
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780
ttcaatggaa cataaacact gggcacaaaa ttctgaacag cagcttcaact tgttcttgg
840
atggacttga aagggcatta aagattcctt aaacgtaacc gctgtgattc tagagttaca
900
gtaaaccacg attggaagaa actgcttcca gcatgctttt aatatgctgg gtgaccact
960
cctagacacc aagtttgaac tagaaacatt cagta
995

<210> 6156
<211> 164
<212> PRT
<213> Homo sapiens

<400> 6156
Thr Ile Val Lys Pro Val Ala Lys Glu Phe Asp Pro Asp Met Val Leu
1 5 10 15
Val Ser Ala Gly Phe Asp Ala Leu Glu Gly His Thr Pro Pro Leu Gly

20	25	30
Gly Tyr Lys Val Thr Ala Lys Cys Phe Gly His Leu Thr Lys Gln Leu		
35	40	45
Met Thr Leu Ala Asp Gly Arg Val Val Leu Ala Leu Glu Gly Gly His		
50	55	60
Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Asn Ala Leu		
65	70	75
Leu Gly Asn Glu Leu Glu Pro Leu Ala Glu Asp Ile Leu His Gln Ser		
85	90	95
Pro Asn Met Asn Ala Val Ile Ser Leu Gln Lys Ile Ile Glu Ile Gln		
100	105	110
Lys Leu Leu Val Ser Leu Trp Lys Arg Ser Gln Pro Cys Glu Val Pro		
115	120	125
Ser Pro Pro Leu Ile Phe Pro Val Cys Asp Ile Ile Val Tyr Pro Pro		
130	135	140
Thr Pro Val Pro Ser Asp Met Ser Cys Leu Leu Pro Gly Trp His Arg		
145	150	155
Phe Asn Gly Thr		160

<210> 6157
<211> 2135
<212> DNA
<213> Homo sapiens

<400> 6157
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360
ctcaattccc tgaagagtgt cccttatggc tcagaggagt acttgcagct gagatctaag
420
atccatgatt tgttccagag cttcgatgac acccctctgg ggacggccctc cctggcccag
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720
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780
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840

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900
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960
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aaggagtaca gccagcgtact gggagccggg gatctctacc ccttgtttgc ctgcgt
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1200
gaggacttag agattcgcaa caacgcggcc aactacctcc cccagatcag ccatactcctc
1260
aaccacgtgc cgccgcagat gctgctcatc ttgaagacca acgacactgtc gcgtggcatt
1320
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1380
atcagagcgc tagctgagca caagaagaag aataaccttt cattcttcag aaggacccag
1440
atctcttca gcgaggcctt caacttatgg cagatcaacc tccatgagct catcctgcgt
1500
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1560
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1620
tcatcttgc tccacccagc tgctccattt ttgccacatc gtggcccgca gccccagagt
1680
caactgtccat gtcaccatcc ttctccctt ttggaaatcct ctccgcacac tgtggccctt
1740
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1800
gcagcctaca ttcccattcc tggtatgtgc cattgggttg gatgtccca ctactccgt
1860
taacccttcc cattgtcaag atgtgccacg ggtgccactg ggggcacact gaactttag
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1980
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2040
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2100
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2135

<210> 6158
<211> 455
<212> PRT
<213> Homo sapiens

<400> 6158
Met Ala Arg Lys Ala Leu Lys Leu Ala Ser Trp Thr Ser Met Ala Leu
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Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn

	20	25	30
Asp Phe Gly Ala Val Arg Val Gly Arg Ala Val Ala Thr Thr Ala Val			
35	40	45	
Ile Ser Tyr Asp Tyr Leu Thr Ser Leu Lys Ser Val Pro Tyr Gly Ser			
50	55	60	
Glu Glu Tyr Leu Gln Leu Arg Ser Lys Ile His Asp Leu Phe Gln Ser			
65	70	75	80
Phe Asp Asp Thr Pro Leu Gly Thr Ala Ser Leu Ala Gln Val His Lys			
85	90	95	
Ala Val Leu His Asp Gly Arg Thr Val Ala Val Lys Val Gln His Pro			
100	105	110	
Lys Val Arg Ala Gln Ser Ser Lys Asp Ile Leu Leu Met Glu Val Leu			
115	120	125	
Val Leu Ala Val Lys Gln Leu Phe Pro Glu Phe Met Trp Leu			
130	135	140	
Val Asp Glu Ala Lys Lys Asn Leu Pro Leu Glu Leu Asp Phe Leu Asn			
145	150	155	160
Glu Gly Arg Asn Ala Glu Lys Val Ser Gln Met Leu Arg His Phe Asp			
165	170	175	
Phe Leu Lys Val Pro Arg Ile His Trp Asp Leu Ser Thr Glu Arg Val			
180	185	190	
Leu Leu Met Glu Phe Val Asp Gly Gly Gln Val Asn Asp Arg Asp Tyr			
195	200	205	
Met Glu Arg Asn Lys Ile Asp Val Asn Glu Ile Ser Arg His Leu Gly			
210	215	220	
Lys Met Tyr Ser Glu Met Ile Phe Val Asn Gly Phe Val His Cys Asp			
225	230	235	240
Pro His Pro Gly Asn Val Leu Val Arg Lys His Pro Gly Thr Gly Lys			
245	250	255	
Ala Glu Ile Val Leu Leu Asp His Gly Leu Tyr Gln Met Leu Thr Glu			
260	265	270	
Glu Phe Arg Leu Asn Tyr Cys His Leu Trp Gln Ser Leu Ile Trp Thr			
275	280	285	
Asp Met Lys Arg Val Lys Glu Tyr Ser Gln Arg Leu Gly Ala Gly Asp			
290	295	300	
Leu Tyr Pro Leu Phe Ala Cys Met Leu Thr Ala Arg Ser Trp Asp Ser			
305	310	315	320
Val Asn Arg Gly Ile Ser Gln Ala Pro Val Thr Ala Thr Glu Asp Leu			
325	330	335	
Glu Ile Arg Asn Asn Ala Ala Asn Tyr Leu Pro Gln Ile Ser His Leu			
340	345	350	
Leu Asn His Val Pro Arg Gln Met Leu Leu Ile Leu Lys Thr Asn Asp			
355	360	365	
Leu Leu Arg Gly Ile Glu Ala Ala Leu Gly Thr Arg Ala Ser Ala Ser			
370	375	380	
Ser Phe Leu Asn Met Ser Arg Cys Cys Ile Arg Ala Leu Ala Glu His			
385	390	395	400
Lys Lys Lys Asn Thr Cys Ser Phe Phe Arg Arg Thr Gln Ile Ser Phe			
405	410	415	
Ser Glu Ala Phe Asn Leu Trp Gln Ile Asn Leu His Glu Leu Ile Leu			
420	425	430	
Arg Val Lys Gly Leu Lys Leu Ala Asp Arg Val Leu Ala Leu Ile Cys			
435	440	445	
Trp Leu Phe Pro Ala Pro Leu			

450

455

<210> 6159
<211> 4310
<212> DNA
<213> Homo sapiens

<400> 6159
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1320
aacacgggca gcacccatcaa cctcagcagc gggatggccg tggcaggat gcccggcc
1380

tatgacttga gcagtgttat tgccagtggc tccagcgtgg gccacaacaa cctgattcct
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2160
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2220
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2280
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2340
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2460
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2520
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2580
cctggccggg aaggggacctt gcagggaccc cccctccaa aaaaagaaaa aaagaaaaag
2640
aaagaaaaaa taaatgagga aacgtgtgc agcacaggca gttttcttct ctttctgctc
2700
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2760
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2820
ggagccatag gagggaaagc aggtggcccg gggggatata gggggcccca gcccgtccc
2880
aaagctccct gtcggctgc ccctcgccccg ctttataata aattctctgta atcaccttg
2940
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3000

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3060
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3120
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3180
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3240
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3300
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3360
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3420
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3480
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3540
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3600
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3660
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3720
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3780
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3840
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3900
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3960
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4080
gcattccctcg ctggcgacca actgcacccca cggaggcttgc aactcgctgt cccgtcccc
4140
caggtgcgtt cccgggggggg tcacctgagg ccacctggc cggcgtggct ggggctcatc
4200
cctgtgcctt ggctgcagtg gctcttggg gcgctggccc tgggcctgtc agccggccggg
4260
ctggtatcca ccctctggcc cgtggccgt gaggacacca ggctggtgcc
4310

<210> 6160
<211> 551
<212> PRT
<213> Homo sapiens

<400> 6160
Leu Glu Val Arg Ala Gly Pro Asp Ser Ala Gly Ile Ala Leu Tyr Ser
1 5 10 15
His Glu Asp Val Cys Val Phe Lys Cys Ser Val Ser Arg Glu Thr Glu

Cys	Ser	Arg	Val	Gly	Lys	Gln	Ser	Phe	Ile	Ile	Thr	Leu	Gly	Cys	Asn
35							40							45	
Ser	Val	Leu	Ile	Gln	Phe	Ala	Thr	Pro	Asn	Asp	Phe	Cys	Ser	Phe	Tyr
50							55						60		
Asn	Ile	Leu	Lys	Thr	Cys	Arg	Gly	His	Thr	Leu	Glu	Arg	Ser	Val	Phe
65							70			75			80		
Ser	Glu	Arg	Thr	Glu	Glu	Ser	Ser	Ala	Val	Gln	Tyr	Phe	Gln	Phe	Tyr
85							90						95		
Gly	Tyr	Leu	Ser	Gln	Gln	Asn	Met	Met	Gln	Asp	Tyr	Val	Arg	Thr	
100							105						110		
Gly	Thr	Tyr	Gln	Arg	Ala	Ile	Leu	Gln	Asn	His	Thr	Asp	Phe	Lys	Asp
115							120						125		
Lys	Ile	Val	Leu	Asp	Val	Gly	Cys	Gly	Ser	Gly	Ile	Leu	Ser	Phe	Phe
130							135				140				
Ala	Ala	Gln	Ala	Gly	Ala	Arg	Lys	Ile	Tyr	Ala	Val	Glu	Ala	Ser	Thr
145							150				155			160	
Met	Ala	Gln	His	Ala	Glu	Val	Leu	Val	Lys	Ser	Asn	Asn	Leu	Thr	Asp
165							170						175		
Arg	Ile	Val	Val	Ile	Pro	Gly	Lys	Val	Glu	Glu	Val	Ser	Leu	Pro	Glu
180							185						190		
Gln	Val	Asp	Ile	Ile	Ile	Ser	Glu	Pro	Met	Gly	Tyr	Met	Leu	Phe	Asn
195							200						205		
Glu	Arg	Met	Leu	Glu	Ser	Tyr	Leu	His	Ala	Lys	Lys	Tyr	Leu	Lys	Pro
210							215						220		
Ser	Gly	Asn	Met	Phe	Pro	Thr	Ile	Gly	Asp	Val	His	Leu	Ala	Pro	Phe
225							230				235			240	
Thr	Asp	Glu	Gln	Leu	Tyr	Met	Glu	Gln	Phe	Thr	Lys	Ala	Asn	Phe	Trp
245							250						255		
Tyr	Gln	Pro	Ser	Phe	His	Gly	Val	Asp	Leu	Ser	Ala	Leu	Arg	Gly	Ala
260							265						270		
Ala	Val	Asp	Glu	Tyr	Phe	Arg	Gln	Pro	Val	Val	Asp	Thr	Phe	Asp	Ile
275							280						285		
Arg	Ile	Leu	Met	Ala	Lys	Ser	Val	Lys	Tyr	Thr	Val	Asn	Phe	Leu	Glu
290							295						300		
Ala	Lys	Glu	Gly	Asp	Leu	His	Arg	Ile	Glu	Ile	Pro	Phe	Lys	Phe	His
305							310				315			320	
Met	Leu	His	Ser	Gly	Leu	Val	His	Gly	Leu	Ala	Phe	Trp	Phe	Asp	Val
325							330						335		
Ala	Phe	Ile	Gly	Ser	Ile	Met	Thr	Val	Trp	Leu	Ser	Thr	Ala	Pro	Thr
340							345						350		
Glu	Pro	Leu	Thr	His	Trp	Tyr	Gln	Val	Arg	Cys	Leu	Phe	Gln	Ser	Pro
355							360						365		
Leu	Phe	Ala	Lys	Ala	Gly	Asp	Thr	Leu	Ser	Gly	Thr	Cys	Leu	Leu	Ile
370							375						380		
Ala	Asn	Lys	Arg	Gln	Ser	Tyr	Asp	Ile	Ser	Ile	Val	Ala	Gln	Val	Asp
385							390						395		
Gln	Thr	Gly	Ser	Lys	Ser	Ser	Asn	Leu	Leu	Asp	Leu	Lys	Asn	Pro	Phe
405							410						415		
Phe	Arg	Tyr	Thr	Gly	Thr	Thr	Pro	Ser	Pro	Pro	Pro	Gly	Ser	His	Tyr
420							425						430		
Thr	Ser	Pro	Ser	Glu	Asn	Met	Trp	Asn	Thr	Gly	Ser	Thr	Tyr	Asn	Leu
435							440						445		
Ser	Ser	Gly	Met	Ala	Val	Ala	Gly	Met	Pro	Thr	Ala	Tyr	Asp	Leu	Ser

450	455	460
Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro		
465	470	475
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser		
485	490	495
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser		
500	505	510
Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr		
515	520	525
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr		
530	535	540
Asn Thr Met His Tyr Gly Ser		
545	550	

<210> 6161
<211> 1489
<212> DNA
<213> Homo sapiens

<400> 6161
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60 gatggggaa atggcaagaa aaggagcacc ctgcttagaa agggAACGGA gcccgggtgt
120 gtggctcacg cctgcaatcc anacacccatgg ggaggccgaa gcaaggagat cacctgagcc
180 caagagtttgc agaccaccca catagcaaga ccccatctt attttttggaa aaaaaaaaaa
240 aaaagcagca accagcagga tgggtggaaa aaagttgctg aaggcttttc aagatcctt
300 ctgcctgctc ttctcttcac agagggacag gggagggtga tgagtcagtg gactaatgt
360 ccccatgggg atgaaggatg gttgggtca gggctctaga gggagggtcg gaaggaggaa
420 aggagatggc cagagaagga tgttaggacac agaggtgccg ccgtggatca ccaagaggat
480 caggactggc cagaggaagg agaggagatc aaggcaagca tgaggactt gggagatgca
540 tctgtgcctg cacacagctg aaatccccatgg gaaataagac gggagcaggg tgggtttctg
600 cagccgaggt gagaccaaag tgccagctca ctgccaccct cagtaaagac taacttgc
660 ttccccacaa ctcccccccc agaagttagct tgctcttc tgcctgccac acatcgaaaa
720 gctcaggaa agctccccct ccctggacag ctgtgttcc cttaggcaag gccagtc
780 gcagagatga ggagctggaa aatccccctcc tcccatcccc cacgtccacg cgtgccagat
840 cctgtgc tggctttca cacacagctt cttagacgt tagcctgtga ggcgggtgt
900 gttgtcattt tgcactgag caaacagctt gaaagagaca aaaaccaggat
960 agtttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagcctgggg
1020

tggccaggtg gggttgtca gtgagggggg gaaggagaat agcccccaaa aatgctgccg
1080
gaatggtaaa gggcctggac tgcaaagcta gtgacttgag ctttattttg tggcaactgga
1140
ggttttccca gtcattgtaa tgataacaatc agatttgcgt tgtcttcaag ttaccatgg
1200
aaccgtactt ccacccacca agagtggatt ggagaaggca aaacttagggc agagaagcca
1260
gggagtgttg agaaggctcg aacccagaca gtggcagct gggccccaag acggatgggg
1320
gactccagaa gcgtggagct ggcagagaga aacctgccc gggcatcaga gaaaaggcg
1380
actgtcagg aacagagtag atgaggtggg gAACCTTGG gtaagaagag ctgaatcagg
1440
agcattgagg cagcggtttt caaacctcag aagcaacagc agggccggc
1489

<210> 6162
<211> 58
<212> PRT
<213> Homo sapiens

<400> 6162
Gly Cys Met Ile Phe Ser Arg Phe Ser Thr Glu Gly Ser Glu Leu Trp
1 5 10 15
Glu Arg Lys Glu Asp Gly Gly Asn Gly Lys Lys Arg Ser Thr Leu Leu
20 25 30
Arg Lys Gly Thr Glu Pro Gly Val Val Ala His Ala Cys Asn Pro Xaa
35 40 45
Thr Leu Gly Gly Arg Ser Lys Glu Ile Thr
50 55

<210> 6163
<211> 713
<212> DNA
<213> Homo sapiens

<400> 6163
gtggaaatga gcctctcatt aaaacacgtg ctttctggga gccgtgatga acgtgagtgt
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gagatgagtc cagctgcgtt cagagccatg ggatgtgggt cactgtgacc cagtgggtca
120
caggtgctga gcaaggaagg gctggagge tcaagcaaaa tctacaagaa aaatctaaag
180
ggggccagcc tctgccagga aaagcaggcc tggctctgtt gaaaccccaa tcacgctctg
240
atggataccg gtacctgggc aaggataccg tggatggact tgattttctt ctcctgaaat
300
gtacgagaag gtgcattgcgg ggatttcggc tgcctgaaaa gcaaccctct aaaacccgag
360
tgtcattttt agaatcaaaa aggaaggaag gcagtggctg gtcactgg tcaagtaacga
420
gatctggagc ttttcgcctt aaggtaactg tttaaaactc tgccctgggt cagttgtaac
480

agaaaagtac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt
540
gtctgttgtt accacgcgg cgagctccc ggacacctcc tgacacctcc tgacagtgtc
600
tctttctcta ggagtctct ctcttccac ccaccatggc ggcctggct ggaggggagg
660
cattggggac tgagtcccttc cccgacaggg agtctcttc cccccctggcg cgc
713

<210> 6164
<211> 120
<212> PRT
<213> Homo sapiens

<400> 6164
Met Trp Val Thr Val Thr Gln Trp Val Thr Gly Ala Glu Gln Gly Arg
1 5 10 15
Ala Gly Arg Leu Lys Gln Asn Leu Gln Glu Lys Ser Lys Gly Ala Gln
20 25 30
Pro Leu Pro Gly Lys Ala Gly Leu Ala Leu Leu Lys Pro Gln Ser Arg
35 40 45
Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
50 55 60
Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
65 70 75 80
Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
85 90 95
Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
100 105 110
Ala Phe Arg Leu Lys Val Thr Val
115 120

<210> 6165
<211> 1004
<212> DNA
<213> Homo sapiens

<400> 6165
cccagccgga tcgggcggcg aaggccggcg cggcgagcag caaccatgtc ggtgttcggg
60
aagctgttcg gggctggagg gggtaaggcc ggcaaggcg gcccgacccc ccaggaggcc
120
atccagcggc tgcgggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag
180
aaaatcgagc aggagctgac ggccgccaag aagcacggca caaaaacaa gcgcgcggcc
240
ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgagat cgacggcaca
300
ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg
360
ctcaagaaca tgggctatgc cgccaaggcc atgaaggcg cccatgacaa catggacatc
420
gataaaagttt atgagttat gcaggacatt gctgaccagc aagaacttgc agaggagatt
480

tcaacagcaa tttcgaaacc tgtagggttt ggagaagagt ttgacgagga tgagctcatg
 540
 gcggaaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aa~~c~~actggttga
 600
 cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag
 660
 aagaaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa
 720
 tggggtccag cgctggctgg gcccagacag actgtggtgg cctgcgcagc gagcaggcgt
 780
 gtgcgtgtgt ggggcaggca ggatgtggtg caggcaggtt ccatcgcttt cgactctcac
 840
 tccaaagcag tagggccgag ttgctgctca ctctctgcat agcatggtct gcacctggga
 900
 gttggccggg gggaggggggg cgagcgggct ggcacgtgcc tgctgttat aatgttgaat
 960
 ttctgtaaaa taaaactgtat ttgcaaatcc aaaaaaaaaaaa aaaa
 1004

<210> 6166
<211> 239...
<212> PRT
<213> Homo sapiens

<400> 6166
 Pro Ser Arg Ile Gly Arg Arg Arg Pro Ala Arg Arg Ala Ala Thr Met
 1 5 10 15
 Ser Val Phe Gly Lys Leu Phe Gly Ala Gly Gly Gly Lys Ala Gly Lys
 20 25 30
 Gly Gly Pro Thr Pro Gln Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu
 35 40 45
 Glu Met Leu Ser Lys Lys Gln Glu Phe Leu Glu Lys Lys Ile Glu Gln
 50 55 60
 Glu Leu Thr Ala Ala Lys Lys His Gly Thr Lys Asn Lys Arg Ala Ala
 65 70 75 80
 Leu Gln Ala Leu Lys Arg Lys Arg Tyr Glu Lys Gln Leu Ala Gln
 85 90 95
 Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arg Glu Ala Leu Glu
 100 105 110
 Asn Ala Asn Thr Asn Thr Glu Val Leu Lys Asn Met Gly Tyr Ala Ala
 115 120 125
 Lys Ala Met Lys Ala Ala His Asp Asn Met Asp Ile Asp Lys Val Asp
 130 135 140
 Glu Leu Met Gln Asp Ile Ala Asp Gln Gln Glu Leu Ala Glu Glu Ile
 145 150 155 160
 Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu
 165 170 175
 Asp Glu Leu Met Ala Glu Leu Glu Leu Glu Gln Glu Leu Asp
 180 185 190
 Lys Asn Leu Leu Glu Ile Ser Gly Pro Glu Thr Val Pro Leu Pro Asn
 195 200 205
 Val Pro Ser Ile Ala Leu Pro Ser Lys Pro Ala Lys Lys Lys Glu Glu
 210 215 220
 Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Trp Ala Gly Ser Met

225

230

235

<210> 6167
<211> 1220
<212> DNA
<213> Homo sapiens

<400> 6167
ngccatacag catttagtt ttgttcttc cattaactga agtcacgagg tatgcctcct
60 tggaaaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa
120 tcaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc tgttctatgt
180 cctccacttc cccagtgccc tctctccccc cgggtctgcg cggacgcggc ctcccttaccc
240 catttgcctc cgccccctccc cgtccctcta cgcgttttgg tccctgtttg gtgctttctg
300 tttgcagcta cggcagttag tatgtatgtg acggaccccg agtcacccgc ggcctggac
360 ccctgcctac cttccgtctc gccagccgag ctgtggaaact agcgcgtgcc ccctcgccga
420 cctcggcgtc tccggtccgc ccctcacttg tggtggggcg cagctcctgg tccctcagct
480 gcgcgcgc ccacgcggcc gggctgcggg tctaggggggt ccgcacatctcc ctggctttcc
540 aagggtctaag gtcgtgattc tagggcggtt gggcgccag ggcctcggtg ggggtggcgt
600 gtctgcctt tttatctccc cgcaaggccc ccagtttctt agggaaagcca gtcagtgaag
660 cgcggaggc cggcgccgc gagagagagt ccagttttg aggaccgagt agtcctggc
720 cacctcccgc ctctgctgtc agaagcagca gctgccggc tggaatccaa aatttcggga
780 gctgtgaccc tttcctcatg taaaacgagt agtctggac gatctggca taggaaccaa
840 tcagaaacaa tcgcttcagc aatcaagacc attgttcatc atggaggaac ccatggatac
900 ctctgagcct ctatctgcat taccattcac tggcgccagc tctttgagc caagtggcaa
960 atttggacag tatccatcga tgcagatgaa ccacatccag gcactggggaa agtggaggac
1020 atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt
1080 tttcttgct ttttatttca tggaatacat gagaatctct taactgttgg agtttccaag
1140 gaggcataacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa
1200 agccacaaag ggaaggatcc
1220

<210> 6168
<211> 90
<212> PRT

<213> Homo sapiens

<400> 6168

Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
1 5 10 15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
20 25 30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
35 40 45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
50 55 60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65 70 75 80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
85 90

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

tgagggttgc gatcccttct ctgatttgct gtcagccatg aacggatgga tgtgatgcct
60
gcttagccaaa aggcttccct ctgtgtgttg cagtcctgtg gcattatgca tgccccctcc
120
cagtgacccc aggctttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
180
ctttttaggt gactataact gaagattgct ttacagaagc ccaaaaaggt ttttttagtc
240
atgatgcaag aatctggac tgagacaaaa agtaacggtt cagccatcca gaatgggtcg
300
ggcggcagca accacttact agagtgcggc ggcttcggg aggggcccgc caacggagag
360
acgcggcccg tggacatcg ggtagctgac ctcgcacacg cccagcagca gcagcaacag
420
tggcatctca taaaccatca gccccttagg agtcccagca gttggcttaa gagactaatt
480
tcaagccctt gggagttgga agtcctgcag gtccctgtg gggagcagtt gctgagacga
540
agatgagtgg acctgtgtgt cagcctaacc cttcccccatt ttgaataaaa ttatttttg
600
gagaatggc tcccactgct ttcatgcaaa aataaaaatt aaacgaaaaa cagcttaagc
660
ctgtgaagaa gggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
720

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

1 5 10 15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
20 25 30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
35 40 45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Trp His Leu Ile
50 55 60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
65 70 75 80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
85 90 95
Leu Leu Arg Arg Arg
100

<210> 6171
<211> 1130
<212> DNA
<213> Homo sapiens

<400> 6171
nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
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agagaaaacgc aggttgcgtc gtggtaaaaa aaaatatttg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacaggg atgtctacct ggtataagag gacttgaagc agaaagcaag tgaatacgg
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaaat
300
ctctctagca ctggttccag gtagtctaat gctttggttt acagtgcggc ggcccttgaa
360
acaaaaggata cctcgcttagc tagtttatac cctgcgtga atgatttgac ctctgatctc
420
tttcgtacca aatccaaaag tgaagaaatc aagattgaac tggaaaaact tgaaaaaaaaat
480
ttaactgcaa cttagtattt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaaggc caaagttgat aatcgctgac agaacatggc ctttctaaaa
600
gcaaaagtccatc aggaatttgc attttggaaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatacgatcc ttatgtacatc tatcagagaa actggcaaga
720
ttaaagcaac agactataacc tttgaagaaaa aaattggagt cctatggaa cttaatgccg
780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgtatc gaactgtgac aaaagccaaa taaacatcct
900
tttccctaac aaagttaaattt gaataggact ttacagatc tttttccctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgtat agaatatgg
1020

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 1130

<210> 6172
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 6172
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 Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr
 35 40 45
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp
 50 55 60
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu
 65 70 75 80
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe
 85 90 95
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu
 100 105 110
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser
 115 120 125
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys
 130 135 140
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn
 145 150 155 160
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys
 165 170 175
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg
 180 185 190
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe
 195 200 205
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala
 210 215 220
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg
 225 230 235 240
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu
 245 250 255
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala
 260 265 270
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 275 280 285
 Met Met Glu Leu
 290

<210> 6173
 <211> 1483
 <212> DNA
 <213> Homo sapiens

<400> 6173
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240
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc
300
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420
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480
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720
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1260
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1483

<210> 6174

<211> 299
<212> PRT
<213> Homo sapiens

<400> 6174
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Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
35 40 45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
50 55 60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
65 70 75 80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
85 90 95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
100 105 110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
115 120 125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
130 135 140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
145 150 155 160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
165 170 175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Asn Ser Phe Leu Glu Gln
180 185 190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
195 200 205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
210 215 220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
225 230 235 240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
245 250 255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
260 265 270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
275 280 285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
290 295

<210> 6175
<211> 349
<212> DNA
<213> Homo sapiens

<400> 6175
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120

aaaactgttc agtttgggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa
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 240
 tggttgaata gaagtcaaac agtagtgaa gagtatttgg cttttcttgg taatcttcta
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<210> 6176
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 6176
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 Val Gln Phe Gly Gly Thr Val Thr Glu Val Leu Leu Lys Tyr Lys Lys
 20 25 30
 Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp Pro
 35 40 45
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu
 50 55 60
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 65 70 75 80
 Leu Arg Pro Cys Leu Ser Met Ile Ala Ser
 85 90

<210> 6177
 <211> 1536
 <212> DNA
 <213> Homo sapiens

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 1536

<210> 6178
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 6178
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 20 25 30
 Arg Asn Ala Leu Glu Asn Ile Arg Lys Glu Met Lys Leu Leu Glu Gln
 35 40 45
 Ala Gly Ser Leu Lys Gly Ser Leu Ser Val Glu Glu Gln Leu Ser Leu
 50 55 60
 Ile Ser Gly Cys Pro Asn Ile Gln Glu Ala Val Glu Gly Ala Met His
 65 70 75 80
 Ile Gln Glu Cys Val Pro Glu Asp Leu Glu Leu Lys Lys Ile Phe
 85 90 95
 Ala Gln Leu Asp Ser Ile Ile Asp Asp Arg Val Ile Leu Ser Ser Ser
 100 105 110
 Thr Ser Cys Leu Met Pro Ser Lys Leu Phe Ala Gly Leu Val His Val

115	120	125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro		
130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

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<210> 6180
 <211> 751
 <212> PRT
 <213> Homo sapiens

<400> 6180
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 Trp Arg Xaa Tyr Leu Thr Asp Glu Phe Ala Lys Gly Arg Lys Val Ala
 35 40 45
 Asp Leu Tyr Glu Leu Val Gln Tyr Ala Gly Asn Ile Ile Pro Arg Leu
 50 55 60
 Tyr Leu Leu Ile Thr Val Gly Val Val Tyr Val Lys Ser Phe Pro Gln
 65 70 75 80
 Ser Arg Lys Asp Ile Leu Lys Asp Leu Val Glu Met Cys Arg Gly Val
 85 90 95
 Gln His Pro Leu Arg Gly Leu Phe Leu Arg Asn Tyr Leu Gln Cys
 100 105 110
 Thr Arg Asn Ile Leu Pro Asp Glu Gly Glu Pro Thr Asp Glu Glu Thr
 115 120 125
 Thr Gly Asp Ile Ser Asp Ser Met Asp Phe Val Leu Leu Asn Phe Ala
 130 135 140
 Glu Met Asn Lys Leu Trp Val Arg Met Gln His Gln Gly His Ser Arg
 145 150 155 160
 Asp Arg Glu Lys Arg Glu Arg Glu Arg Gln Glu Leu Arg Ile Leu Val
 165 170 175
 Gly Thr Asn Leu Val Arg Leu Ser Xaa Ser Trp Arg Cys Lys Cys Gly
 180 185 190
 Thr Leu Gln Gln Ile Val Leu Thr Gly Ile Leu Glu Gln Val Val Asn

195	200	205
Cys Arg Asp Ala Leu Ala Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln		
210	215	220
Val Phe Pro Asp Glu Phe His Leu Gln Thr Leu Asn Pro Phe Leu Arg		
225	230	235
Ala Cys Ala Glu Leu His Gln Asn Val Asn Val Lys Asn Ile Ile Ile		
245	250	255
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His Arg Glu Asp Gly Pro		
260	265	270
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser Gln Gln Val		
275	280	285
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val		
290	295	300
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp		
305	310	315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe		
325	330	335
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys		
340	345	350
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile		
355	360	365
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe		
370	375	380
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val		
385	390	395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile		
405	410	415
Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val		
420	425	430
Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly		
435	440	445
Arg Phe Ile His Leu Leu Arg Ser Glu Asp Pro Asp Gln Gln Tyr Leu		
450	455	460
Ile Leu Asn Thr Ala Arg Lys His Phe Gly Ala Gly Gly Asn Gln Arg		
465	470	475
Ile Arg Phe Thr Leu Pro Pro Leu Val Phe Ala Ala Tyr Gln Leu Ala		
485	490	495
Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn		
500	505	510
Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile		
515	520	525
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala		
530	535	540
Leu Ala Ala Gly Glu Ile Gly Phe Glu Asn His Glu Thr Val Ala Tyr		
545	550	555
Glu Phe Met Ser Gln Ala Phe Ser Leu Tyr Glu Asp Glu Ile Ser Asp		
565	570	575
Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Ile Gly Thr Phe Glu		
580	585	590
Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln		
595	600	605
Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg		
610	615	620
Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys		

625	630	635	640
Asn Gly Glu Glu Leu His Gly Gly Lys Arg Val Met Glu Cys Leu Lys			
645	650	655	
Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val			
660	665	670	
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys			
675	680	685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys			
690	695	700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln			
705	710	715	720
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg			
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<210> 6181

<211> 1135

<212> DNA

<213> Homo sapiens

<400> 6181

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ctcg~~ga~~agcc tt~~cgg~~ac~~ct~~g tattgg~~aa~~ac aatgtttt~~tg~~ ggaac~~gc~~gtg catct~~ct~~gtg
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gc~~ag~~cg~~gg~~ccg aac~~gg~~c~~agg~~gc tcttgatttc atctttgctc cgggac~~gt~~atg agagtatttc
720
ccatg~~ct~~g~~ga~~ gtc~~gg~~cg~~ag~~ga agggcc~~gg~~agg cggggc~~ct~~gg gc~~ag~~actgtg gtcc~~gg~~tcca
780
gtcc~~cc~~taccg gtgtt~~ttt~~tc catg~~ct~~caga aac~~ct~~gc~~ct~~c agc~~gg~~aa~~ag~~c tcttattt~~gg~~
840
gattttat~~at~~ catgtc~~gg~~gt cc~~ct~~ctt~~cc~~c ct~~gg~~ttattt gtaaa~~atgg~~aa acttt~~tc~~ggc
900
ttgttatttcc ttagat~~tttt~~ttt~~ttt~~cc tccaatcatt tgcttc~~ag~~ag actc~~ttt~~ct
960

ggcctaacag cgcattcctt tgattggtcc ttgagtgacc agagacttag tgcccttgta
 1020
 agtctgtctt ctgttgctac ttgtttttt cagtgtctg aaatagagta actaaatgg
 1080
 tatttgtctg aataataataa tgtaaaactt cttgtggtca tcttaaaaaaa aaaaa
 1135

<210> 6182
<211> 236
<212> PRT
<213> Homo sapiens

<400> 6182
Ala Lys Arg Tyr Ser Trp Ser Gly Met Gly Arg Ile His Lys Gly Ile
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Arg Glu Gln Gly Arg Tyr Leu Asn Ser Arg Pro Ser Ile Gln Lys Pro
 20 25 30
Glu Val Phe Phe Leu Pro Asp Leu Pro Thr Thr Pro Tyr Phe Ser Arg
 35 40 45
Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr
 50 55 60
Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser
 65 70 75 80
Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe
 85 90 95
Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg
 100 105 110
Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile
 115 120 125
Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly
 130 135 140
Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys
 145 150 155 160
His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly
 165 170 175
Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser
 180 185 190
Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg
 195 200 205
Val Val Phe Met Val Asp Leu Trp His Pro Asn Val Ala Ala Ala Glu
 210 215 220
Arg Gln Ala Leu Asp Phe Ile Phe Ala Pro Gly Arg
 225 230 235

<210> 6183
<211> 2530
<212> DNA
<213> Homo sapiens

<400> 6183
acgcgtcggt cgttggggcg ttgagcaagt gcgaccccg agtcatttg gctggggttg
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gaggattagc atctgccatt gactcgcat aaaggcccc gctctcgcg tgagaggttg
 120

aggttgtgtt gcgggggtcg ggttagctgta ggcttttagaa atggcatcaa aggtggcctt
180
ggcgaagttg cccagggtgg cagtgcagcc ccgggctgag gtgttagcagt catcgatacc
240
agccatcatg agcagcttct taggcacagg tgccggagacg atgccagtgcc ccctgggtgc
300
agggatgagg cgtaccagca cagagccgca gcggcctgtc acctggtgag ggaaggagtc
360
aggagacggg ggcccggaggg agcctgcccc acggcaggcc catcacctgc caccagccta
420
ccttgcaagg gacagtgtgg ggcttgcga tcttggccc ccagtagcct ctgcgcacgg
480
ggacgatgga gagcttggcc aggatgatgg cccacggat ggccggtgcc acctcccttgg
540
agcaactaac acccagaccc acgtggccat tgttagtcccc gatagcaaca aatgccttga
600
acctgggtcg ctggccggca cgggtctgct tctgcactgg cataatcttc aaaacctcat
660
ccttgagaga ggccccccagg aaaaagtcaa tgatctctga ttcccttaatg ggcagagaga
720
agagatagat ctccctccagg gacttgatct tcattgcctt gaccaagcgg cccaacttgg
780
tgacgggcat ccactcccta tctccggcct tgccctccgag agctccgcgg cctccggcccc
840
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900
ttcccgccgag gtttccggcag tggcatccgg ggccggggtc gcggccgtgg acggggccgg
960
ggccgaggcc gcggagctcg cggaggcaag gccgaggata aggagtggat gcccgtcacc
1020
aagttgggcc gcttggtcaa ggacatgaag atcaagtccc tggaggagat ctatctttc
1080
tccctgcccc ttaaggaatc agagatcatt gatttcttcc tggggggcctc tctcaaggat
1140
gaggaaaaatgaa agattatgcc agtgcagaag cagaccgtg ccggccagcg caccaggttc
1200
aaggcatttgc ttgttatcg ggactacaat ggccacgtcg gtctgggtgt taagtgtcc
1260
aaggaggtgg ccaccggccat ccgtggggcc atcatcctgg ccaagctctc catcgcccc
1320
gtgcgcagag gctactgggg gaacaagatc ggcaagcccc acactgtccc ttgcaagggt
1380
acaggccgct gcccgtctgt gctggtaacgc ctcatccctg cacccagggg cactggcatc
1440
gtctccgcac ctgtgcctaa gaagctgctc atgatggctg gtatcgatga ctgctacacc
1500
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1560
tctaagaccc acagctaccc gaccccccac ctctggagg agactgtatt caccaagtct
1620
ccctatcagg agttcactga ccacccgtc aagacccaca ccagagctctc cgtgcagcgg
1680
actcaggctc cagctgtggc tacaacatag ggttttata caagaaaaat aaagtgaatt
1740

aagctgtcac cccaccatgg agaaaagagt ctttgggatc ttttaacat aagtgattag
 1800
 tttaagagta tgctgaggag ccactgggct taaagaagga tgtaaataag acccaaatac
 1860
 atagggacca ggcgctgctt tctcatgttc aaaaaagcag tcctccacca ctgaactcca
 1920
 ttctctcagg gggctcaatg aaggctaacc aatccgatgc atgtgttagt aacagtc
 1980
 tggactggca cttgtaaaca gccaatgcc aaccatcag gttcccaatg agatagacca
 2040
 aaccctgaag aaacttctgg cttgaacttt ctaacatctt gaaagtggct gaaatggcca
 2100
 taagtgcctg aatgggtcgc caggccatca tacacacca catacgatggg aagatggaga
 2160
 tagtattgcc tgccatgtac atgatgaaga gattcatggg aatctgttg aggggaccca
 2220
 aggcgatgtc ccagcagcgc ttctccacca ggatccggc tgcgttgc acgctggat
 2280
 caggcacttg cttgtccaag taaccgactg ggttagagcga gtctccctgg ccactgcccc
 2340
 ggtcacttcg acccctgctg cttccctccag gcccgccttgc ctcaatggcc cacttgaagc
 2400
 gccggccctcg gttagccacc agggcccccct gggccgtcat ggcaacagct gcgtccctata
 2460
 gcctcgatgc ttctcagtc aaagcgtact ccacaacagg cccaccagcg ttctcccgctt
 2520
 tgtctcaccc
 2530

<210> 6184
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 6184
 Arg Ala Ser Thr Pro Tyr Leu Arg Pro Cys Leu Arg Glu Leu Arg Gly
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 Leu Gly Pro Gly Pro Val His Gly Arg Asp Pro Gly Pro Gly Pro
 20 25 30
 Gly Met Gly Asn Arg Gly Gly Phe Arg Gly Gly Phe Gly Ser Gly Ile
 35 40 45
 Arg Gly
 50 55 60
 Ala Arg Gly Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys
 65 70 75 80
 Leu Gly Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile
 85 90 95
 Tyr Leu Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Phe Phe
 100 105 110
 Leu Gly Ala Ser Leu Lys Asp Glu Val Leu Lys Ile Met Pro Val Gln
 115 120 125
 Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe Lys Ala Phe Val Ala
 130 135 140
 Ile Gly Asp Tyr Asn Gly His Val Gly Leu Gly Val Lys Cys Ser Lys

145 150 155 160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
165 170 175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
180 185 190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
195 200 205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
210 215 220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
225 230 235 240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
245 250 255
Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
260 265 270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
275 280 285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
290 295 300
Val Ala Thr Thr
305

<210> 6185
<211> 1231
<212> DNA
<213> Homo sapiens

<400> 6185
cacagcttgt tccttaggaag ggcttagcaa acgggggtgg ttgtccttct tggaagccac
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atttgtttgc ctggtgagtg gtggaggca ctgctaggcc tgctaggct gacacggcca
120
gagtcagatg acctcatctc acatccagca ggtgaaatgc agtctttgat ccctgaaac
180
ccaccctcta ggaccaaggt cactgcagta ttggatagga cctcagggag ttagcagggg
240
gctcatggtt aagagtgtga actacagctt agacctacag ggttccctgc ccagctcctc
300
cacaaccacat ctgtcaacc ctagacaagt gagttaatgt ccctgggcct cagttcttc
360
tttagaaaaat gtgtgtagcc atagagggct gttatgagga ttcagtcaaa tgacacatga
420
tgtcttggc acacctggcg tggattatgg cgccctgtagg agcaggaggg cttcctggag
480
gagggggcta gttgaacaga gtctagaaag tatagattgg gaagagcact ctgggaggca
540
ggatcaccat gtgcaaaggc tcagagaatg ccacccacta cctcctggaa atcaagggga
600
ttctgtgtgt ccaagggcat tggtggtctc taggcccccg acctgtgtct gggaggtgtc
660
aaggggaagc cagatccgag gcccacactt gcatgttttc aggtgaggtc cagagatata
720
tccagagagg agtggaaaggc ctcggagacc tacagccccca atactgcata tggtgtggac
780

ttcctggtgc ccgtgatggg ctatatctgc cgcatctgcc acaagttcta tcacagcaac
840
tcaggggcac agctctccca ctgcaagtcc ctggggccact ttgagaacct gcagaaaatac
900
aaggcgccca agaacccccag ccccaccacc cgacctgtga gccgcccgtg cgcaatcaac
960
gcccggAACG ctttgacagc cctgttccacc tccagcggcc gcccacccctc ccagcccaac
1020
acccaggaca aaacacccag caaggtgacg gctcgaccct cccagcccc actacctcg
1080
cgctcaaccc gcctcaaaac ctgatagagg gacccctctg tccctggcct gcctgggtcc
1140
agatctgcta atgctttta ggagtctgcc tggaaaacttt gacatggtac atgcttttac
1200
tcaaaatcca ataaaacaag gtaagttgg c
1231

<210> 6186
<211> 133
<212> PRT
<213> Homo sapiens

<400> 6186
Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr
1 5 10 15
Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met
20 25 30
Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
35 40 45
Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
50 55 60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
65 70 75 80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
85 90 95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
100 105 110
Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
115 120 125
Thr Arg Leu Lys Thr
130

<210> 6187
<211> 909
<212> DNA
<213> Homo sapiens

<400> 6187
nagtcctccc aaagtacttg tgtccgggtg gtggactgga ttcgctgccc agccctggaa
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gctgccttcc ttctccctg tgcttaacca gaggtgccca tgggttggac aatgaggctg
120
gtcacacgacg cactgttact gggctctcatg atgggttgtca ctggagacga ggtatgagaac
180

agcccgtgtg cccatgaggc cctttggac gaggacaccc tctttgccca gggccttgaa
 240
 gttttctacc cagagttggg gaacattggc tgcaagggttgc ttccctgattt taacaactac
 300
 agacagaaga tcaccttctg gatggagccg atagtcaagt tccccggggc cgtgtacggc
 360
 gcaacctata tcctggtgat ggtggatcca gatgccccta gcagagcaga acccagacag
 420
 agatttctgga gacattggct ggtaaacagat atcaagggcg ccgacctgaa gaaagggaaag
 480
 attcagggcc aggagttatc agcctaccag gctccctccc caccggcaca cagtggcttc
 540
 catcgctacc agttcttgc tstatcttag gaaggaaaag tcatctctt ccttcccaag
 600
 gaaaacaaaaa ctcgaggctc ttggaaaatg gacagatttc tgaaccgtt ccacctggc
 660
 gaacctgaag caagcaccca gttcatgacc cagaactacc aggactcacc aaccctccag
 720
 gctcccaagaa aaagggccag cgagcccaag cacaaaaacc aggccggagat agctgcctgc
 780
 tagatagccg gctttgccat ccgggcatgt ggccacactg cccaccaccc acgatgtggg
 840
 tatggAACCC cctctggata cagaaccctt tctttccaa attaaaaaaaaaaa aaaatcatcc
 900
 agggcaaaaa
 909

<210> 6188
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 6188
 Met Gly Trp Thr Met Arg Leu Val Thr Ala Ala Leu Leu Leu Gly Leu
 1 5 10 15
 Met Met Val Val Thr Gly Asp Glu Asp Glu Asn Ser Pro Cys Ala His
 20 25 30
 Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly Leu Glu Val
 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
 Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met Glu Pro Ile Val Lys
 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
 130 135 140
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys
 145 150 155 160
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

165 170 175
Met Asp Arg Phe Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser
180 185 190
Thr Gln Phe Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala
195 200 205
Pro Arg Glu Arg Ala Ser Glu Pro Lys His Lys Asn Gln Ala Glu Ile
210 215 220
Ala Ala Cys
225

<210> 6189
<211> 2761
<212> DNA
<213> Homo sapiens

<400> 6189
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gcaatccccga tcctctgagt cgtgaagaag ggaggcagcg agggggttgg gtttggggcc
120
tgagggcaagc ccccaggctc cgctttgcc agagggacag gagccatggc tcagaaaatg
180
gactgtggtg cgggcctcct cggcttcag gctgaggcct ccgtagaaga cagcgccttg
240
cttatgcaga ctttgatgga ggccatccag atctcagagg ctccacctac taaccaggcc
300
accgcagctg ctagtccccca gagttcacag cccccaactg ccaatgagat ggctgacatt
360
caggttccag cagctgccgc taggcctaag tcagcctta aagtccagaa tgccaccaca
420
aaaggcccaa atggtgtcta tgatttctct caggtcata atgccaaggaa tgtgcccac
480
acgcagccca aggccgcctt taagtcccaa aatgcatacc caaagggtcc aaatgtgcc
540
540
tatgattttt cccaggcage aaccactggt gagttagctg ctaacaagtc tgagatggcc
600
ttcaaggccc agaatgccac tactaaagtg ggcccaaatg ccacctacaa ttctctcag
660
tctctcaatg ccaatgaccc ggccaaacagc aggccctaaga ccccttcaa ggcttggaaat
720
gataccacta aggccccaac agctgatacc cagacccaga atgtaaatca ggccaaaatg
780
ggccacttccc aggctgacat agagaccgac ccaggtatct ctgaacctga cggtgcaact
840
gcacagacat cagcagatgg ttcccaggct cagaatctgg agtcccggac aataattcgg
900
ggcaagagga cccgcaagat taataacttg aatgttgaag agaacagcag tggggatcag
960
aggcggggccc cactggctgc agggacctgg aggtctgcac cagttccagt gaccactcag
1020
aacccacctg ggcacccccc caatgtgctc tggcagacgc cattggcttg gcagaacccc
1080
tcaggctggc aaaaccagac agccaggcag accccaccag cacgtcagag ccctccagct
1140

aggcagaccc caccagectg gcagacccag aaccaggatcg cttggcagaa cccagtgatt
1200
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1260
ggccctgttg tctggccgaa tccactggcc tggcagaatc cacctggatg gcagactcca
1320
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1380
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1500
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1560
cagccccgag atgtggccct tcttcaggaa agagcaaata agttggtcaa gtacttgatg
1620
cttaaggact acacaaaagg tcccatcaag cgctcagaaa tgctgagaga tatcatccgt
1680
gaatacactg atgttatcc agaaatcatt gaacgtgcatt gctttgtcct agagaagaaa
1740
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1800
cccgagtcctc tggctggcat actggaaacg accaaagaca cacccttgcct cggctccctc
1860
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1920
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1980
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2040
aacagcaacc ccccgaggta tgagttccctc tggggccctcc gttcctacca tgagactagc
2100
aagatgaaag tgctgagatt cattgcagag gttcagaaaa gagaccctcg tgactggact
2160
gcacagttca tggaggctgc agatgaggcc ttggatgctc tggatgctgc tgcaagctgag
2220
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2280
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2340
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2400
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2460
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2520
tgctatcaat cgcaatggatc tttccctgt gtgaggctga agcctcagat tccttctaaa
2580
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2640
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2700
ataaacattt gaaatttgcataa gtgaa
2760

a
2761

<210> 6190
<211> 576
<212> PRT
<213> Homo sapiens

<400> 6190
Met Ala Thr Ser Gln Ala Asp Ile Glu Thr Asp Pro Gly Ile Ser Glu
1 5 10 15
Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
20 25 30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
35 40 45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
50 55 60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
65 70 75 80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
85 90 95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
100 105 110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
115 120 125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
130 135 140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145 150 155 160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
165 170 175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
180 185 190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
195 200 205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
210 215 220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225 230 235 240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
245 250 255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
260 265 270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
275 280 285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
290 295 300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
305 310 315 320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
325 330 335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
340 345 350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Val Ile Leu Gly Val Ile

355	360	365
Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp Glu Ala Leu		
370	375	380
Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Leu Leu Gly Asp		
385	390	395
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp		
405	410	415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp		
420	425	430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe		
435	440	445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe		
450	455	460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala		
465	470	475
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp		
485	490	495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu		
500	505	510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile		
515	520	525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe		
530	535	540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser		
545	550	555
Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu		
565	570	575

<210> 6191
<211> 3021
<212> DNA
<213> Homo sapiens

<400> 6191
ctttgagaag gAACCTGTCC CCTCAGGGAT TAAGCAAGCA CAGCCCTAGT TGATCACCCA
60
gcATGAAAAG TCCTGGAATC TCTCAGAGAT AACCTGTGT ATGGGAGTT TGCTTAAGTG
120
gtACTTCAAG AAGGTGCCTC TGTTTACCTT GGTTTGAC TGCCATGCAG CCAGGTGGTG
180
cAGGTCTCCC AAATGCCACC CCCCTCCAAG CTTCCTCTT TGCTCTAAGT CCTCAGGCCT
240
CCTGGGCCTG GGACAGATGG TTGTTGTGT CATCAGGACT CGTGGGGTTC TATGCGTGG
300
gcACTCACCG CAGCCTAAGC TGGGATCCCA GCTCAGAGGT CAGGCCATGT TGGGATGTT
360
AGGGAAAGGTG ATGCATTATC AGGAGACATA TCTACTGTCC CCTGCCCTGT ACCCCCCAGGC
420
ATTGATCTGG AGAACATTGT GTACTACAAG GACGACACCC ACTACTTTGT GATGACAGCC
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Leu Gly Val Leu Arg Gln Asp Trp Pro Asp Thr Asn Arg Leu Leu
 50 55 60
 Gly Ser Ala Asn Val Val Thr Glu Ala Leu Gln Arg Phe Thr Arg Ala
 65 70 75 80
 Ala Ala Asp Phe Ala Thr His Gly Lys Leu Gly Lys Leu Glu Phe Ala
 85 90 95
 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser
 100 105 110
 Met Met Arg Ala Glu Ser Ser Ala Arg Val Gln Glu Lys His Gly Ala
 115 120 125
 Arg Leu Leu Leu Gly Leu Val Gly Asp Cys Leu Val Glu Pro Phe Trp
 130 135 140
 Pro Leu Gly Thr Gly Val Ala Arg Gly Phe Leu Ala Ala Phe Asp Ala

145	150	155	160
Ala Trp Met Val Lys Arg Trp Ala Glu Gly Ala Glu Ser Leu Glu Val			
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Leu Ala Glu Arg Glu Ser Leu Tyr Gln Leu Leu Ser Gln Thr Ser Pro			
180	185	190	
Glu Asn Met His Arg Asn Val Ala Gln Tyr Gly Leu Asp Pro Ala Thr			
195	200	205	
Arg Tyr Pro Asn Leu Asn Leu Arg Ala Val Thr Pro Asn Gln Val Arg			
210	215	220	
Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp			
225	230	235	240
Lys Thr Asp Thr Gly Met Pro Ala Thr Gly Ser Ala Gly Thr Gln Glu			
245	250	255	
Glu Leu Leu Arg Trp Cys Gln Glu Gln Thr Ala Gly Tyr Pro Gly Val			
260	265	270	
His Val Ser Asp Leu Ser Ser Trp Ala Asp Gly Leu Ala Leu Cys			
275	280	285	
Ala Leu Val Tyr Arg Leu Gln Pro Gly Leu Leu Glu Pro Ser Glu Leu			
290	295	300	
Gln Gly Leu Gly Ala Leu Glu Ala Thr Ala Trp Ala Leu Lys Val Ala			
305	310	315	320
Glu Asn Glu Leu Gly Ile Thr Pro Val Val Ser Ala Gln Ala Val Val			
325	330	335	
Ala Gly Ser Asp Pro Leu Gly Leu Ile Ala Tyr Leu Ser His Phe His			
340	345	350	
Ser Ala Phe Lys Ser Met Ala His Ser Pro Gly Pro Val Ser Gln Ala			
355	360	365	
Ser Pro Gly Thr Ser Ser Ala Val Leu Phe Leu Ser Lys Leu Gln Arg			
370	375	380	
Thr Leu Gln Arg Ser Arg Ala Lys Asp Leu Leu Gln Glu Asn Ala Glu			
385	390	395	400
Asp Ala Gly Gly Lys Lys Leu Arg Leu Glu Met Glu Ala Glu Thr Pro			
405	410	415	
Ser Thr Glu Val Pro Pro Asp Pro Glu Pro Gly Val Pro Leu Thr Pro			
420	425	430	
Pro Ser Gln His Gln Glu Ala Gly Ala Gly Asp Leu Cys Ala Leu Cys			
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Gly Glu His Leu Tyr Val Leu Glu Arg Leu Cys Val Asn Gly His Phe			
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Phe His Arg Ser Cys Phe Arg Cys His Thr Cys Glu Ala Thr Leu Trp			
465	470	475	480
Pro Gly Gly Tyr Glu Gln His Pro Gly Asp Gly His Phe Tyr Cys Leu			
485	490	495	
Gln His Leu Pro Gln Thr Asp His Lys Ala Glu Gly Ser Asp Arg Gly			
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Pro Glu Ser Pro Glu Leu Pro Thr Pro Ser Glu Asn Ser Met Pro Pro			
515	520	525	
Gly Leu Ser Thr Pro Thr Ala Ser Gln Glu Gly Ala Gly Pro Val Pro			
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Asp Pro Ser Gln Pro Thr Arg Arg Gln Ile Arg Leu Ser Ser Pro Glu			
545	550	555	560
Arg Gln Arg Leu Ser Ser Leu Asn Leu Thr Pro Asp Pro Glu Met Glu			
565	570	575	
Pro Pro Pro Lys Pro Pro Arg Ser Cys Ser Ala Leu Ala Arg His Ala			

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Ala Leu Val Ala Met Glu Lys Glu Glu Lys Ser Pro Phe Ser Ser		
610	615	620
Glu Glu Glu Glu Asp Val Pro Leu Asp Ser Asp Val Glu Gln Ala		
625	630	635
Leu Gln Thr Phe Ala Lys Thr Ser Gly Thr Met Asn Asn Tyr Pro Thr		
645	650	655
Trp Arg Arg Thr Leu Leu Arg Arg Ala Lys Glu Glu Met Lys Arg		
660	665	670
Phe Cys Lys Ala Gln Thr Ile Gln Arg Arg Leu Asn Glu Ile Glu Ala		
675	680	685
Ala Leu Arg Glu Leu Glu Ala Glu Gly Val Lys Leu Glu Leu Ala Leu		
690	695	700
Arg Arg Gln Ser Ser Ser Pro Glu Gln Gln Lys Lys Leu Trp Val Gly		
705	710	715
Gln Leu Leu Gln Leu Val Asp Lys Lys Asn Ser Leu Val Ala Glu Glu		
725	730	735
Ala Glu Leu Met Ile Thr Val Gln Glu Leu Asn Leu Glu Glu Lys Gln		
740	745	750
Trp Gln Leu Asp Gln Glu Leu Arg Gly Tyr Met Asn Arg Glu Glu Asn		
755	760	765
Leu Lys Thr Ala Ala Asp Arg Gln Ala Glu Asp Gln Val Leu Arg Lys		
770	775	780
Leu Val Asp Leu Val Asn Gln Arg Asp Ala Leu Ile Arg Phe Gln Glu		
785	790	795
Glu Arg Arg Leu Ser Glu Leu Ala Leu Gly Thr Gly Ala Gln Gly		
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<210> 6193
 <211> 2893
 <212> DNA
 <213> Homo sapiens

<400> 6193
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 420
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Glu Val Val Gln Tyr Ala Lys Glu Val Val Asp Phe Ser Ser His
 50 55 60
 Tyr Gly Ser Glu Asn Ser Met Ser Tyr Thr Met Trp Asn Leu Ala Gly
 65 70 75 80
 Val Pro Asn Val Phe Pro Ser Ser Gly Asp Phe Thr Gln Thr Ala Val
 85 90 95
 Phe Arg Thr Tyr Gly Thr Trp Trp Asp Gln Cys Pro Ser Ala Ser Leu
 100 105 110
 Pro Phe Lys Arg Thr Pro Pro Asn Phe Gln Ser Gln Asp Tyr Val Glu
 115 120 125
 Leu Thr Phe Glu Gln Gln Val Tyr Pro Thr Ala Val His Val Leu Glu
 130 135 140
 Thr Tyr His Pro Gly Ala Val Ile Arg Ile Leu Ala Cys Ser Ala Asn
 145 150 155 160
 Pro Tyr Ser Pro Asn Pro Pro Ala Glu Val Arg Trp Glu Ile Leu Trp

165	170	175
Ser Glu Arg Pro Thr Lys Val Asn Ala Ser Gln Ala Arg Gln Phe Lys		
180	185	190
Pro Cys Ile Lys Gln Ile Asn Phe Pro Thr Asn Leu Ile Arg Leu Glu		
195	200	205
Val Asn Ser Ser Leu Leu Glu Tyr Tyr Thr Glu Leu Asp Ala Val Val		
210	215	220
Leu His Gly Val Lys Asp Lys Pro Val Leu Ser Leu Lys Thr Ser Leu		
225	230	240
Ile Asp Met Asn Asp Ile Glu Asp Asp Ala Tyr Ala Glu Lys Asp Gly		
245	250	255
Cys Gly Met Asp Ser Leu Asn Lys Lys Phe Ser Ser Ala Val Leu Gly		
260	265	270
Glu Gly Pro Asn Asn Gly Tyr Phe Asp Lys Leu Pro Tyr Glu Leu Ile		
275	280	285
Gln Leu Ile Leu Asn His Leu Thr Leu Pro Asp Leu Cys Arg Leu Ala		
290	295	300
Gln Thr Cys Lys Leu Leu Ser Gln His Cys Cys Asp Pro Leu Gln Tyr		
305	310	320
Ile His Leu Asn Leu Gln Pro Tyr Trp Ala Lys Leu Asp Asp Thr Ser		
325	330	335
Leu Glu Phe Leu Gln Ser Arg Cys Thr Leu Val Gln Trp Leu Asn Leu		
340	345	350
Ser Trp Thr Gly Asn Arg Gly Phe Ile Ser Val Ala Gly Phe Ser Arg		
355	360	365
Phe Leu Lys Val Cys Gly Ser Glu Leu Val Arg Leu Glu Leu Ser Cys		
370	375	380
Ser His Phe Leu Asn Glu Thr Cys Leu Glu Val Ile Ser Glu Met Cys		
385	390	400
Pro Asn Leu Gln Ala Leu Asn Leu Ser Ser Cys Asp Lys Leu Pro Pro		
405	410	415
Gln Ala Phe Asn His Ile Ala Lys Leu Cys Ser Leu Lys Arg Leu Val		
420	425	430
Leu Tyr Arg Thr Lys Val Glu Gln Thr Ala Leu Leu Ser Ile Leu Asn		
435	440	445
Phe Cys Ser Glu Leu Gln His Leu Ser Leu Gly Ser Cys Val Met Ile		
450	455	460
Glu Asp Tyr Asp Val Ile Ala Ser Met Ile Gly Ala Lys Cys Lys Lys		
465	470	480
Leu Arg Thr Leu Asp Leu Trp Arg Cys Lys Asn Ile Thr Glu Asn Gly		
485	490	495
Ile Ala Glu Leu Ala Ser Gly Cys Pro Leu Leu Glu Glu Leu Asp Leu		
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Gly Trp Cys Pro Thr Leu Gln Ser Ser Thr Gly Cys Phe Thr Arg Leu		
515	520	525
Ala His Gln Leu Pro Asn Leu Gln Lys Leu Phe Leu Thr Ala Asn Arg		
530	535	540
Ser Val Cys Asp Thr Asp Ile Asp Glu Leu Ala Cys Asn Cys Thr Arg		
545	550	560
Leu Gln Gln Leu Asp Ile Leu Gly Thr Arg Met Val Ser Pro Ala Ser		
565	570	575
Leu Arg Lys Leu Leu Glu Ser Cys Lys Asp Leu Ser Leu Leu Asp Val		
580	585	590
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595	600	605
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<211> 518
<212> DNA
<213> Homo sapiens

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420
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Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr
35 40 45
Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
50 55 60
Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
65 70 75 80
Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
85 90 95
Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
100 105 110
His Arg Thr Gly Trp
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<210> 6197
<211> 2841

<212> DNA

<213> Homo sapiens

<400> 6197

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<210> 6198
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6198
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Arg	Ser	Gln	Arg
Ser	Gln	Arg	Val
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Thr	Lys	Gly	Ser
Ser	Ser	Gly	Pro
Gly	His	Leu	Gly
35	40	45	
Asn	Thr	His	Trp
Pro	Trp	Gly	Ala
Gly	Met	Trp	Ala
50	55	60	
Trp	Gly	Gly	Ala
Arg	Glu	Gln	Ala
Cys	Val	Arg	Pro
65	70	75	80
Leu	Arg	Ala	Ile
Leu	Trp	Ser	Ser
85	90	95	
Trp	Leu	Arg	Val
Ser	Tyr	Val	Ser
Tyr	Phe	Tyr	Leu
100	105	110	
Leu	Ser	Pro	Pro
115	120		
Val	Ala	Thr	Ile
Ala	Leu	Leu	Glu
Thr	Ile	Glu	Leu
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Val	Leu	Ser	Ala
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<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

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 300
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 360
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<210> 6200
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 6200
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 35 40 45
 Val Gly Val Pro Xaa Arg Ser Pro His Pro Gln Gly Gly Phe Thr His
 50 55 60
 Cys Pro Val Pro Gly Met Pro Gly Gly Arg Pro Leu Cys Cys Cys His
 65 70 75 80
 Cys Cys Gln His Cys Pro Ala Cys Glu Ala Arg Arg Ser Pro Cys Pro
 85 90 95
 Thr Arg Cys Cys Cys Ser Ser Asp Pro Cys Cys Glu Glu Trp Asp Ser
 100 105 110
 Trp Ser Lys Lys Leu Val Phe Leu Phe Cys Ile Asn Glu Lys Asn Pro
 115 120 125
 Gly Glu Ala Ala Thr Leu Pro Ser Gln Arg Asp Ala Leu Pro Cys Phe
 130 135 140
 Gly Val Leu Ser Pro Phe Pro Pro Leu Val Gln Gly Gln Pro Ser Arg

145
Ser Ser Trp Phe

150

155

160

<210> 6201
<211> 604
<212> DNA
<213> *Homo sapiens*

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<210> 6202
<211> 124
<212> PRT
<213> *Homo sapiens*

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<400> 6202
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Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg
      35          40          45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
      50          55          60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
      65          70          75          80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
      85          90          95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
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Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

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115

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<210> 6203
<211> 3462
<212> DNA
<213> Homo sapiens

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 3240
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<210> 6204
 <211> 486
 <212> PRT
 <213> Homo sapiens

<400> 6204
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 Asp Gly His Arg Leu Cys Ser Asp Leu Met Asn Cys Leu His Glu Arg
 35 40 45
 Ala Arg Ile Glu Lys Ala Tyr Ala Gln Gln Leu Thr Glu Trp Ala Arg
 50 55 60
 Arg Trp Arg Gln Leu Val Glu Lys Gly Pro Gln Tyr Gly Thr Val Glu
 65 70 75 80
 Lys Ala Trp Met Ala Phe Met Ser Glu Ala Glu Arg Val Ser Glu Leu
 85 90 95
 His Leu Glu Val Lys Ala Ser Leu Met Asn Asp Asp Phe Glu Lys Ile
 100 105 110
 Lys Asn Trp Gln Lys Glu Ala Phe His Lys Gln Met Met Gly Gly Phe
 115 120 125
 Lys Glu Thr Lys Glu Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro
 130 135 140
 Trp Ala Lys Lys Leu Lys Glu Val Glu Ala Ala Lys Lys Ala His His
 145 150 155 160
 Ala Ala Cys Lys Glu Glu Lys Leu Ala Ile Ser Arg Glu Ala Asn Ser
 165 170 175
 Lys Ala Asp Pro Ser Leu Asn Pro Glu Gln Leu Lys Lys Leu Gln Asp
 180 185 190
 Lys Ile Glu Lys Cys Lys Gln Asp Val Leu Lys Thr Lys Glu Lys Tyr
 195 200 205
 Glu Lys Ser Leu Lys Glu Leu Asp Gln Gly Thr Pro Gln Tyr Met Glu
 210 215 220
 Asn Met Glu Gln Val Phe Glu Gln Cys Gln Gln Phe Glu Glu Lys Arg
 225 230 235 240
 Leu Arg Phe Phe Arg Glu Val Leu Leu Glu Val Gln Lys His Leu Asp

245	250	255
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260	265	270
Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala		
275	280	285
Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp		
290	295	300
Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala		
305	310	315
Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser		
325	330	335
Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala		
340	345	350
Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp		
355	360	365
Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn		
370	375	380
Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp		
385	390	395
Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser		
405	410	415
Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg		
420	425	430
Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys		
435	440	445
Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp		
450	455	460
Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn		
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Tyr Val Glu Ala Ile Gln		
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<210> 6205

<211> 926

<212> DNA

<213> Homo sapiens

<400> 6205

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480

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926

<210> 6206
<211> 92
<212> PRT
<213> Homo sapiens

<400> 6206
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20 25 30
Arg Glu Gly Lys Glu Phe Ala Asp Ser Gln Lys Leu Leu Phe Met Glu
35 40 45
Thr Ser Ala Lys Leu Asn His Gln Val Ser Glu Val Phe Asn Thr Val
50 55 60
Ala Gln Glu Leu Leu Gln Arg Ser Asp Glu Glu Gly Gln Ala Leu Xaa
65 70 75 80
Gly Glu Asp Thr Pro Cys Leu Gly His Gly Gln Leu
85 90

<210> 6207
<211> 1384
<212> DNA
<213> Homo sapiens

<400> 6207
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<210> 6208
 <211> 290
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Ala Ala Ala Thr Val Arg Glu Ala Gln Gly Leu Met Ala Gly Gly
 50 55 60
 Phe Leu Cys Phe Ser Leu Ala Phe Xaa Ala Gln Val Gln Val Val Phe
 65 70 75 80
 Trp Arg Leu His Ser Pro Thr Gln Val Glu Asp Ala Met Leu Asp Thr

85	90	95
Tyr Asp Leu Val Tyr Glu Gln Ala Met Lys Gly Thr Ser His Val Arg		
100	105	110
Arg Gln Glu Leu Ala Ala Ile Gln Asp Val Phe Leu Cys Cys Gly Lys		
115	120	125
Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp Leu Cys Gln		
130	135	140
Gly Glu Glu Ala Ala Arg Glu Asp Cys Leu Gln Gly Ile Arg Ser Phe		
145	150	155
Leu Arg Thr His Gln Gln Val Ala Ser Ser Leu Thr Ser Ile Gly Leu		
165	170	175
Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe Leu Trp Phe Ala		
180	185	190
Ile Arg Cys Gly Cys Ser Leu Asp Arg Lys Gly Lys Tyr Thr Leu Thr		
195	200	205
Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro Ser Leu Leu Arg Cys		
210	215	220
Ser Gln Gly Gly Pro Thr His Cys Leu His Ser Glu Ala Val Ala Ile		
225	230	235
Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp Leu Gln Glu Ser Asp		
245	250	255
Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala Ala His Arg Ala Leu		
260	265	270
Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys Pro Glu Arg Gly Leu		
275	280	285
Ser Asp		
290		

<210> 6209
<211> 2269
<212> DNA
<213> Homo sapiens

<400> 6209
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120
gcggggaaac cctggatatt tcactctgaa gtggttctt gaaagaaaac tcaactgact
180
caggccatga gcatcttta cactgaagca agcatctcct cacaagtgcc tcctacaagt
240
caactagatc atattcaaca ttacaaaatg cagtgctact taaattttaa agcaactgagg
300
gaccaagaaa tgggctgatc aagtccctgg ccactcactg ttaagagcca ggatttacag
360
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420
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480
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540
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600

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720
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780
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840
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1020
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1140
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1980
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2040
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2100
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2160
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2220

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2269

<210> 6210
<211> 165
<212> PRT
<213> Homo sapiens

<400> 6210
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Ser Pro Ser Leu Arg Gly Thr His Leu Leu Phe Leu Pro Gln Ala Asp
35 40 45
Val Val Asp Glu Ala Ile Asp Ser Leu Ala Arg Thr Lys Gly Val Met
50 55 60
Lys Pro Pro Cys Ser Glu Gly Ser Pro Trp Arg Cys Pro His Phe Thr
65 70 75 80
Cys Trp Val Leu Gln Ala Arg Lys Pro Gly Ser Gly Gly Thr Arg Glu
85 90 95
Arg Gln Ala Cys Val Trp Thr Ser Ala Gly Ala Ala Leu Arg Leu
100 105 110
Ala Arg Glu Arg Gln Arg Trp Val Phe Arg Phe His Ala Tyr Val Trp
115 120 125
Ala His Ser Gln His Gly Arg Val Ser Ala Val Leu Val Leu Thr Leu
130 135 140
Pro Glu Gln Gln Trp Thr Asp Glu Ile Arg Leu Phe Gln Lys Gln Arg
145 150 155 160
Trp Pro Gln Pro Ser
165

<210> 6211
<211> 2163
<212> DNA
<213> Homo sapiens

<400> 6211
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180
tatggcaata ttattcgtgg ctggngatcg gtatctgacc aaccannaaa aaactccaat
240
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300
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360
aagaggggagc caggaagtgg gacggaaagt gacacttctc cagacttcca caatcaggaa
420
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480

cagaaggctg ctttttctac ttcctcaggg agtcaccaca gcagccataa aaagcgaaag
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600
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780
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840
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900
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1080
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1140
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1860
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1920
catcctatgt tatgattggt ccaaggata agatttgggg tctaaccctt ctttcactc
1980
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2040
gtgatagtagt tggtagggct gaatatggat ggcacatctact gtaaaacaag tctacccgt
2100

cagatgtgca aaagcttca ctcttgttct caaataaaact tttgtgggtt tttttaaaaa

2160

aaa

2163

<210> 6212

<211> 209

<212> PRT

<213> Homo sapiens

<400> 6212

Xaa Arg Pro Pro Gln Pro Asn Met Ala Met His Asn Lys Ala Ala Pro

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Pro Gln Ile Pro Asp Thr Arg Arg Glu Leu Ala Glu Leu Val Lys Gly
20 25 30

Lys Gln Glu Leu Ala Glu Thr Leu Ala Asn Leu Glu Arg Gln Ile Tyr
35 40 45

Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
50 55 60

Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn
65 70 75 80

Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
85 90 95

Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Val Ser Ala Leu Ala
100 105 110

Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr
115 120 125

Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser
130 135 140

Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro
145 150 155 160

Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His
165 170 175

Lys Lys Arg Lys Asn Lys Asn Arg His Ser Pro Ser Gly Met Phe Asp
180 185 190

Tyr Asp Phe Glu Ile Asp Leu Lys Leu Asn Lys Lys Pro Arg Ala Asp
195 200 205

Tyr

<210> 6213

<211> 1160

<212> DNA

<213> Homo sapiens

<400> 6213

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120

tctcttcgaa ctttgcagct gtacttgtt tgctcctcta cccgcaggag ctgacatgga

180

cccaaattcct cgggcccggcc tggagcgcaca gcagctccgc cttcgggagc ggcaaaaatt

240

cttcgaggac atttacagc cagagacaga gtttgttt cctctgtccc atctgcatct
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360
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720
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780
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1020
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1160

<210> 6214
<211> 101
<212> PRT
<213> *Homo sapiens*

<400> 6214
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 Ser Thr Asn Pro Pro Val Val Trp Gly Gly Gln Pro Phe Gly Gly Ala
 20 25 30
 Glu Pro Ala Xaa Cys Leu His Gln Thr Gly Pro His Leu Gly Pro Pro
 35 40 45
 Pro Pro Pro Pro Pro Thr Pro Pro Pro Thr Cys Ile Ala Gln Ile Gln
 50 55 60
 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg
 65 70 75 80
 Lys Gly Val Met Glu Gly Gln Ser Leu Glu Pro Ala Ala Ser Ser Gly
 85 90 95
 Pro Leu Pro Thr Asp
 100

<210> 6215
<211> 651
<212> DNA
<213> Homo sapiens

<400> 6215
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ctcctcagag catgtggccg ccagccccag gagcccagcc tcttgagatg ctcccagggt
180
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300
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420
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480
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attgagcaaa ttgtggtaa atatacatca catcaaattt accatcttaa ccattgttaa
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651

<210> 6216
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6216
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20 25 30
Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp
35 40 45
Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
50 55 60
Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys
65 70 75 80
Pro Glu Arg Gly Leu Ser Asp
85

<210> 6217
<211> 2955
<212> DNA
<213> Homo sapiens

<400> 6217

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240
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360
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2820
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<210> 6218
<211> 133
<212> PRT
<213> Homo sapiens

<400> 6218
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Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
35 40 45
Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
50 55 60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
65 70 75 80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
85 90 95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
100 105 110
Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
115 120 125
Thr Arg Leu Lys Thr
130

<210> 6219
<211> 2495
<212> DNA
<213> Homo sapiens

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180
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240
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300
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900

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<211> 179
<212> PRT
<213> Homo sapiens

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Ser Ala Gly Asn Thr Ala Arg Cys Pro Gln Thr Pro Gly Ser Ala Gln
35 40 45
Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
50 55 60
Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
65 70 75 80
Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp
85 90 95
Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro
100 105 110
Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg
115 120 125
Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala
130 135 140
Trp Gly Asp Gly Glu Gln Ala Pro Pro Arg Ala Ser Ser Glu Gly Gly
145 150 155 160
Asp Ala Ala Pro Phe Leu Pro Ala Ala Gln Thr Ala Pro Thr Gly Ser
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Gly Ala Gly

<210> 6221
<211> 1487
<212> DNA
<213> Homo sapiens

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 1380
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 1487

<210> 6222
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 6222
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 35 40 45
 Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn
 50 55 60
 Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr
 65 70 75 80
 Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His
 85 90 95
 Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly

100	105	110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His		
115	120	125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg		
130	135	140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys		
145	150	155
160		
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr		
165	170	175
Leu Val Glu His Lys Arg Ile His Thr Lys Glu Lys Pro Tyr Lys Cys		
180	185	190
Ser Lys Cys Glu Lys Thr Phe Ser Gln Asn Ser Thr Leu Ile Arg His		
195	200	205
Gln Val Ile His Ser Gly Glu Lys Arg His Lys Cys Leu Glu Cys Gly		
210	215	220
Lys Ala Phe Gly Arg His Ser Thr Leu Leu Cys His Gln Gln Ile His		
225	230	235
240		
Ser Lys Pro Asn Thr His Lys Cys Ser Glu Cys Gly Gln Ser Phe Gly		
245	250	255
Arg Asn Val Asp Leu Ile Gln His Gln Arg Ile His Thr Lys Glu Glu		
260	265	270
Phe Phe Gln Cys Gly Glu Cys Gly Lys Thr Phe Ser Phe Lys Arg Asn		
275	280	285
Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys		
290	295	300
Val Ile Cys Gly Lys Ser Phe Lys Trp His Thr Ser Phe Ile Lys His		
305	310	315
320		
Gln Gly Thr His Lys Gly Gln Ile Ser Thr		
325	330	

<210> 6223
 <211> 944
 <212> DNA
 <213> Homo sapiens

<400> 6223
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 180
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 240
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 300
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 360
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 420
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 480
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 720
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 780
 840
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 900
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 944

<210> 6224
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 6224
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 Ala Glu Gly His Val Gly Gln Gly Ala Pro Gly Leu Met Gly Asn Met
 35 40 45
 Asn Pro Glu Gly Val Asn His Glu Asn Gly Met Asn Arg Asp Gly
 50 55 60
 Gly Met Ile Pro Glu Gly Gly Gly Asn Gln Glu Pro Arg Gln Gln
 65 70 75 80
 Pro Gln Pro Pro Pro Glu Glu Pro Ala Gln Ala Ala Met Glu Gly Pro
 85 90 95
 Gln Pro Glu Asn Met Gln Pro Arg Thr Arg Arg Thr Lys Phe Thr Leu
 100 105 110
 Leu Gln Val Glu Glu Leu Glu Ser Val Phe Arg His Thr Gln Tyr Pro
 115 120 125
 Asp Val Pro Thr Arg Arg Glu Leu Ala Glu Asn Leu Gly Val Thr Glu
 130 135 140
 Asp Lys Val Arg Val Ser Thr Leu Glu Lys Ala Ile
 145 150 155

<210> 6225
 <211> 3851
 <212> DNA
 <213> Homo sapiens

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420
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<210> 6227
<211> 830
<212> DNA
<213> Homo sapiens

<400> 6227
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<211> 271
<212> PRT
<213> Homo sapiens

<400> 6228
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35 40 45
Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
50 55 60
Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
65 70 75 80
Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

85	90	95
Pro Val Asp Ser Phe Phe Ser Leu	Leu Thr Ser Glu Arg Val Ala Lys	
100	105	110
Gln Phe Pro Val Met Thr Glu Ala Ile Thr Gln Ile Arg Ala Lys Gly		
115	120	125
Leu Gln Thr Ala Val Leu Ser Asn Asn Phe Tyr Leu Pro Asn Gln Lys		
130	135	140
Ser Phe Leu Pro Leu Asp Arg Lys Gln Phe Asp Val Ile Val Glu Ser		
145	150	155
Cys Met Glu Gly Ile Cys Lys Pro Asp Pro Arg Ile Tyr Lys Leu Cys		
165	170	175
Leu Glu Gln Leu Gly Leu Gln Pro Ser Glu Ser Ile Phe Leu Asp Asp		
180	185	190
Leu Gly Thr Asn Leu Lys Glu Ala Ala Arg Leu Gly Ile His Thr Ile		
195	200	205
Lys Val Asn Asp Pro Glu Thr Ala Val Lys Glu Leu Glu Ala Leu Leu		
210	215	220
Gly Phe Thr Leu Arg Val Gly Val Pro Asn Thr Arg Pro Val Lys Lys		
225	230	235
Thr Met Glu Ile Pro Lys Asp Ser Leu Gln Lys Tyr Leu Lys Asp Leu		
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260	265	270

<210> 6229

<211> 3105

<212> DNA

<213> Homo sapiens

<400> 6229

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720

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1740
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1980
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2100
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2220
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2280
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2340

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<210> 6230
 <211> 944
 <212> PRT
 <213> Homo sapiens

<400> 6230

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Pro	Asp	Arg	Trp	Asn	Ser	Ala	Phe	Thr	Arg	Lys	Asp	Glu	Ile	Ile	Thr
					20				25				30		
Ser	Leu	Val	Ser	Ala	Leu	Asp	Ser	Met	Cys	Ser	Ala	Leu	Ser	Lys	Leu
					35			40			45				
Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
					50			55			60				
Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
					65			70			75			80	
Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
					85			90			95				
Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Arg	
					100			105			110				
Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu
					115			120			125				
Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu
					130			135			140				
Gly	Arg	Ala	Ser	Val	Val	Pro	Leu	Pro	Tyr	Glu	Arg	Leu	Leu	Arg	Glu
					145			150			155			160	
Pro	Gly	Leu	Leu	Ala	Val	Gln	Gly	Leu	Pro	Glu	Gly	Leu	Ala	Phe	Arg

	165	170	175
Arg Pro Ala Glu Tyr Asp Pro Lys Ala Leu Met Ala Ile Leu Glu His			
180	185	190	
Ser His Arg Ile Arg Phe Lys Leu Lys Arg Pro Leu Glu Asp Gly Gly			
195	200	205	
Arg Asp Ser Lys Ala Leu Val Glu Leu Asn Gly Val Ser Leu Ile Pro			
210	215	220	
Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro			
225	230	235	240
Pro Gln Asp Leu Pro Pro Thr Ala Thr Ser Ser Ser Met Ala Ser Phe			
245	250	255	
Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln			
260	265	270	
Glu Ala Pro Ser Cys Pro Leu Ala Pro Ser Asp Leu Gly Leu Ser Arg			
275	280	285	
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys			
290	295	300	
Cys Gly Gln Lys Pro Thr Gly Pro Gly Gly Pro Leu Ile Gln Asn Val			
305	310	315	320
His Ala Ser Lys Arg Ile Leu Phe Ser Ile Val His Asp Lys Ser Glu			
325	330	335	
Lys Trp Asp Ala Phe Ile Lys Glu Thr Glu Asp Ile Asn Thr Leu Arg			
340	345	350	
Glu Cys Val Gln Ile Leu Phe Asn Ser Arg Tyr Ala Glu Ala Leu Gly			
355	360	365	
Leu Gly Asn Met Val Pro Val Pro Tyr Arg Lys Ile Ala Cys Asp Pro			
370	375	380	
Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg			
385	390	395	400
Pro Cys Thr Tyr Gly Val Pro Lys Leu Lys Arg Ile Leu Glu Glu Arg			
405	410	415	
His Ser Ile His Phe Ile Ile Lys Arg Met Phe Asp Glu Arg Ile Phe			
420	425	430	
Thr Gly Asn Lys Phe Thr Lys Asp Thr Thr Lys Leu Glu Pro Ala Ser			
435	440	445	
Pro Pro Glu Asp Thr Ser Ala Glu Val Ser Arg Ala Thr Val Leu Asp			
450	455	460	
Leu Ala Gly Asn Ala Arg Ser Asp Lys Gly Ser Met Ser Glu Asp Cys			
465	470	475	480
Gly Pro Gly Thr Ser Gly Glu Leu Gly Gly Leu Arg Pro Ile Lys Ile			
485	490	495	
Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro Asp Pro Ser			
500	505	510	
Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His Leu Pro Ser			
515	520	525	
Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys Gly Leu Ser			
530	535	540	
Glu Asp Ala Arg Pro Glu Glu Arg Pro Val Glu Asp Ser His Gly Asp			
545	550	555	560
Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe Asn Thr Arg			
565	570	575	
Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val Pro Tyr Ser			
580	585	590	
Lys Phe Leu Met His Pro Glu Glu Leu Phe Val Val Gly Leu Pro Glu			

595	600	605
Gly Ile Ser Leu Arg Arg Pro Asn Cys Phe Gly	Ile Ala Lys Leu Arg	
610	615	620
Lys Ile Leu Glu Ala Ser Asn Ser Ile Gln Phe Val Ile Lys Arg Pro		
625	630	640
Glu Leu Leu Thr Glu Gly Val Lys Glu Pro Ile Val Asp Ser Gln Glu		
645	650	655
Arg Asp Ser Gly Asp Pro Leu Val Asp Glu Ser Leu Lys Arg Gln Gly		
660	665	670
Phe Gln Glu Asn Tyr Asp Ala Arg Leu Ser Arg Ile Asp Ile Ala Asn		
675	680	685
Thr Leu Arg Glu Gln Val Gln Asp Leu Phe Asn Lys Lys Tyr Gly Glu		
690	695	700
Ala Leu Gly Ile Lys Tyr Pro Val Gln Val Pro Tyr Lys Arg Ile Lys		
705	710	720
Ser Asn Pro Gly Ser Val Ile Ile Glu Gly Leu Pro Pro Gly Ile Pro		
725	730	735
Phe Arg Lys Pro Cys Thr Phe Gly Ser Gln Asn Leu Glu Arg Ile Leu		
740	745	750
Ala Val Ala Asp Lys Ile Lys Phe Thr Val Thr Arg Pro Phe Gln Gly		
755	760	765
Leu Ile Pro Lys Pro Asp Glu Asp Asp Ala Asn Arg Leu Gly Glu Lys		
770	775	780
Val Ile Leu Arg Glu Gln Val Lys Glu Leu Phe Asn Glu Lys Tyr Gly		
785	790	800
Glu Ala Leu Gly Leu Asn Arg Pro Val Leu Val Pro Tyr Lys Leu Ile		
805	810	815
Arg Asp Ser Pro Asp Ala Val Glu Val Thr Gly Leu Pro Asp Asp Ile		
820	825	830
Pro Phe Arg Asn Pro Asn Thr Tyr Asp Ile His Arg Leu Glu Lys Ile		
835	840	845
Leu Lys Ala Arg Glu His Val Arg Met Val Ile Ile Asn Gln Leu Gln		
850	855	860
Pro Phe Ala Glu Ile Cys Asn Asp Ala Lys Val Pro Ala Lys Asp Ser		
865	870	880
Ser Ile Pro Lys Arg Lys Arg Val Ser Glu Gly Asn Ser Val		
885	890	895
Ser Ser Ser Ser Ser Ser Ser Ser Ser Asn Pro Asp Ser		
900	905	910
Val Ala Ser Ala Asn Gln Ile Ser Leu Val Gln Trp Pro Met Tyr Met		
915	920	925
Val Asp Tyr Ala Gly Leu Asn Val Gln Leu Pro Gly Pro Leu Asn Tyr		
930	935	940

<210> 6231
<211> 471
<212> DNA
<213> Homo sapiens

<400> 6231
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taccaatgac aggcctact cacagccact gcactccagc ttggggcgaca gaacgaggcc
120

ttgcctttt aaaaaaaaaaaa aaaaggctca aaaaaaagagt atgctggcc aaaaatctgg
 180
 cccctcaggc ctcctgacct ggaggagaaa aaggggcccg aagccccccg ttgccccat
 240
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 300
 ggggacaaaa aaatgggcgc tggattttc aacgccggaa acccaattcc cacccctgg
 360
 ccggccgttc ttagggattc caacttgga cccaacctgg gcgtattctg ggccttactt
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<210> 6232
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 6232
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 Lys Lys Ser Met Leu Gly Gln Lys Ser Gly Pro Ser Gly Leu Leu Thr
 35 40 45
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
 100 105 110
 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly
 115 120 125
 Ile Pro Phe Pro Phe Pro Pro Pro Ser Asn
 130 135

<210> 6233
 <211> 894
 <212> DNA
 <213> Homo sapiens

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 120
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 180
 ctagccagtt acattccaga ggatgaggcg ctgatgcttc gggatggacg ctttgttgt
 240
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 300

ggcaagaaac atctgtccag cttgcagctt ttctatggca agaaggcagcc gggaaaggaa
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 420
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 780
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 <211> 230
 <212> PRT
 <213> Homo sapiens

<400> 6234
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 Glu Ala Leu Met Leu Arg Asp Gly Arg Phe Ala Cys Ala Ile Cys Pro
 35 40 45
 His Arg Pro Val Leu Asp Thr Leu Ala Met Leu Thr Ala His Arg Ala
 50 55 60
 Gly Lys Lys His Leu Ser Ser Leu Gln Leu Phe Tyr Gly Lys Lys Gln
 65 70 75 80
 Pro Gly Lys Glu Arg Lys Gln Asn Pro Lys His Gln Asn Glu Leu Arg
 85 90 95
 Arg Glu Glu Thr Lys Ala Glu Ala Pro Leu Leu Thr Gln Thr Arg Leu
 100 105 110
 Ile Thr Gln Ser Ala Leu His Arg Ala Pro His Tyr Asn Ser Cys Cys
 115 120 125
 Arg Arg Lys Tyr Arg Pro Glu Ala Pro Gly Pro Ser Val Ser Leu Ser
 130 135 140
 Pro Met Pro Pro Ser Glu Val Lys Leu Gln Ser Gly Lys Ile Ser Arg
 145 150 155 160
 Glu Pro Glu Pro Ala Ala Gly Pro Gln Ala Glu Glu Ser Ala Thr Val
 165 170 175
 Ser Ala Pro Ala Pro Met Ser Pro Thr Arg Arg Ala Leu Asp His
 180 185 190
 Tyr Leu Thr Leu Arg Ser Ser Gly Trp Ile Pro Asp Gly Arg Gly Arg
 195 200 205
 Trp Val Lys Asp Glu Asn Val Glu Phe Asp Ser Asp Glu Glu Pro

210 215 220

Pro Asp Leu Pro Leu Asp
225 230

<210> 6235
<211> 3427
<212> DNA
<213> Homo sapiens

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180
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240
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2520
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2580
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2700
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2940

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 3240
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 3420
 gcccggcc
 3427

<210> 6236
<211> 820
<212> PRT
<213> Homo sapiens

<400> 6236
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 20 25 30
Pro Glu Gly Gly Leu Pro Gly Pro Trp Ala Leu His Arg Gly Arg Lys
 35 40 45
Lys Ala Thr Gly Ser Pro Val Ser Ile Phe Val Tyr Asp Val Lys Pro
 50 55 60
Gly Ala Glu Glu Gln Thr Gln Val Ala Lys Ala Ala Phe Lys Arg Phe
 65 70 80
Lys Thr Leu Arg His Pro Asn Ile Leu Ala Tyr Ile Asp Gly Leu Glu
 85 90 95
Thr Glu Lys Cys Leu His Val Val Thr Glu Ala Val Thr Pro Leu Gly
 100 105 110
Ile Tyr Leu Lys Ala Arg Val Glu Ala Gly Gly Leu Lys Glu Leu Glu
 115 120 125
Ile Ser Trp Gly Leu His Gln Ile Val Lys Ala Leu Ser Phe Leu Val
 130 135 140
Asn Asp Cys Ser Leu Ile His Asn Asn Val Cys Met Ala Ala Val Phe
 145 150 160
Val Asp Arg Ala Gly Glu Trp Lys Leu Gly Gly Leu Asp Tyr Met Tyr
 165 170 175
Ser Ala Gln Gly Asn Gly Gly Pro Pro Arg Lys Gly Ile Pro Glu
 180 185 190
Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser Gly Arg Val
 195 200 205
Val Arg Glu Lys Trp Ser Ala Asp Met Trp Arg Leu Gly Cys Leu Ile
 210 215 220
Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Leu Arg Asn

225	230	235	240
Pro Gly Lys Ile Pro Lys Thr Leu Val Pro His Tyr Cys Glu Leu Val			
245	250	255	
Gly Ala Asn Pro Lys Val Arg Pro Asn Pro Ala Arg Phe Leu Gln Asn			
260	265	270	
Cys Arg Ala Pro Gly Gly Phe Met Ser Asn Arg Phe Val Glu Thr Asn			
275	280	285	
Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu Lys Gln Lys			
290	295	300	
Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro Glu Asp Phe			
305	310	315	320
Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly			
325	330	335	
Asn Ala Gly Ala Val Val Leu Thr Pro Leu Phe Lys Val Gly Lys Phe			
340	345	350	
Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys			
355	360	365	
Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln			
370	375	380	
Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val Asn Thr Gln			
385	390	395	400
Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn Pro Ala Ile			
405	410	415	
Arg Glu Gln Thr Val Lys Ser Met Leu Leu Ala Pro Lys Leu Asn			
420	425	430	
Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln			
435	440	445	
Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu			
450	455	460	
Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu			
465	470	475	480
Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala Pro Ser Arg			
485	490	495	
Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu Tyr Ser Met			
500	505	510	
Asn Asp Cys Ala Gln Lys Ile Leu Pro Val Leu Cys Gly Leu Thr Val			
515	520	525	
Asp Pro Glu Lys Ser Val Arg Asp Gln Ala Phe Lys Ala Ile Arg Ser			
530	535	540	
Phe Leu Ser Lys Leu Glu Ser Val Ser Glu Asp Pro Thr Gln Leu Glu			
545	550	555	560
Glu Val Glu Lys Asp Val His Ala Ala Ser Ser Pro Gly Met Gly Gly			
565	570	575	
Ala Ala Ala Ser Trp Ala Gly Trp Ala Val Thr Gly Val Ser Ser Leu			
580	585	590	
Thr Ser Lys Leu Ile Arg Ser His Pro Thr Thr Ala Pro Thr Glu Thr			
595	600	605	
Asn Ile Pro Gln Arg Pro Thr Pro Glu Gly Val Pro Ala Pro Ala Pro			
610	615	620	
Thr Pro Val Pro Ala Thr Pro Thr Thr Ser Gly His Trp Glu Thr Gln			
625	630	635	640
Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser Ser Thr Ala Asp Arg Trp			
645	650	655	
Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln Glu Ala Glu Ser Val Leu			

660	665	670
Ala Gln Gln Asp Asp Trp Ser Thr Gly Gly Gln Val Ser Arg Ala Ser		
675	680	685
Gln Val Ser Asn Ser Asp His Lys Ser Ser Lys Ser Pro Glu Ser Asp		
690	695	700
Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp Glu Gln Gly Trp Gln Glu		
705	710	715
Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly Thr Arg Leu Ala Ser Glu		
725	730	735
Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp Lys Gly Asp Pro Phe Ala		
740	745	750
Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro Arg Pro Asp Ser Trp Gly		
755	760	765
Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp Ser Arg Gln Val Lys Ala		
770	775	780
Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg Arg Arg Glu Met Glu Ala		
785	790	795
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Arg Lys Leu Asp		
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<210> 6237

<211> 494

<212> DNA

<213> Homo sapiens

<400> 6237

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<210> 6238

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6238

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Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
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Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
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Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
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His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
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His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
100	105	110	
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
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Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
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<210> 6239
<211> 911
<212> DNA
<213> Homo sapiens

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<210> 6240
<211> 235
<212> PRT
<213> Homo sapiens

<400> 6240
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35 40 45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
50 55 60
Gly Pro Leu Gly Phe Ser Phe Phe Asn Met Leu Phe Val Phe Arg
65 70 75 80
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
85 90 95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
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Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
130 135 140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
145 150 155 160
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165 170 175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
180 185 190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
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Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln
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<212> DNA
<213> Homo sapiens

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240

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<210> 6242
<211> 245
<212> PRT
<213> Homo sapiens

<400> 6242
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35	40	45	
Gly	Glu Pro Pro Pro Glu Leu Ala Leu Leu Pro Pro Pro Pro		
50	55	60	
Pro	Pro Pro Thr Pro Ala Thr Pro Thr Ser Ser Ala Ser Asn Leu Asp		
65	70	75	80
Leu	Gly Glu Gln Arg Asp Ala Trp Glu Thr Phe Gln Lys Arg Gln Lys		
85	90	95	
Leu	Thr Ser Glu Gly Ala Ala Lys Leu Leu Leu Asp Thr Phe Glu Tyr		
100	105	110	
Gln	Gly Leu Val Lys His Thr Gly Gly Cys His Cys Gly Ala Val Arg		
115	120	125	
Phe	Glu Val Trp Ala Ser Ala Asp Leu His Ile Phe Asp Cys Asn Cys		
130	135	140	
Ser	Ile Cys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala Ser		
145	150	155	160
Arg	Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr Phe		
165	170	175	
Asn	Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val Gln		
180	185	190	
Ser	Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala Pro		
195	200	205	
His	Cys Leu Asp Glu Gly Thr Val Arg Ser Met Val Thr Glu Glu Phe		
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<210> 6243

<211> 326

<212> DNA

<213> Homo sapiens

<400> 6243

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<210> 6244

<211> 104

<212> PRT

<213> Homo sapiens

<400> 6244

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35 40 45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
50 55 60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
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<210> 6245

<211> 6609
<212> DNA
<213> Homo sapiens

<400> 6245

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<210> 6246
 <211> 1286
 <212> PRT
 <213> Homo sapiens

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 Glu Asn Met Met Gln Arg His Glu Glu Glu Ala His Glu Lys Gly Lys
 20 25 30
 Ile Leu Ser Glu Gln Lys Ala Met Ile Asn Ala Met Asp Ser Lys Ile
 35 40 45
 Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys Leu
 50 55 60
 Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln Glu
 65 70 75 80
 Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr Gln
 85 90 95
 Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu Glu
 100 105 110
 Lys Ile Ser His Gln Asp His Ser Asp Lys Asn Arg Leu Leu Glu Leu
 115 120 125
 Glu Thr Arg Leu Arg Glu Val Ser Leu Glu His Glu Glu Gln Lys Leu
 130 135 140
 Glu Leu Lys Arg Gln Leu Thr Glu Leu Gln Leu Ser Leu Gln Glu Arg

145	150	155	160
Glu Ser Gln Leu Thr Ala Leu Gln Ala Ala Arg Ala Ala Leu Glu Ser			
165	170	175	
Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Glu Thr Thr Ala Glu Ala			
180	185	190	
Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg Asp Glu Ile Gln Arg			
195	200	205	
Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu Glu			
210	215	220	
Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn Ala Glu Leu Asn Asn Gln			
225	230	235	240
Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala Ser Gly Ala Asn Asp			
245	250	255	
Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu Ile			
260	265	270	
Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu Ala			
275	280	285	
Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Met Asp Leu Glu			
290	295	300	
Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala Trp			
305	310	315	320
Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val Arg			
325	330	335	
Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg Ala			
340	345	350	
Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val Lys			
355	360	365	
Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln Ala Leu Lys Glu Gln			
370	375	380	
Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu Asn Asp Leu Glu Lys			
385	390	395	400
Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu			
405	410	415	
Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys			
420	425	430	
Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr			
435	440	445	
Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr Glu			
450	455	460	
Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser			
465	470	475	480
His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu			
485	490	495	
Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys Lys			
500	505	510	
Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys			
515	520	525	
Ala Arg Cys Ala Glu Leu Glu Ala Leu Gln Lys Thr Arg Ile Glu			
530	535	540	
Leu Arg Ser Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp His			
545	550	555	560
Pro His Pro Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met Ser			
565	570	575	
Ala Ile Val Arg Ser Pro Glu His Gln Pro Ser Ala Met Ser Leu Leu			

	580	585	590
Ala Pro Pro Ser Ser Arg Arg Lys Glu Ser Ser Thr Pro Glu Glu Phe			
595	600	605	
Ser Arg Arg Leu Lys Glu Arg Met His His Asn Ile Pro His Arg Phe			
610	615	620	
Asn Val Gly Leu Asn Met Arg Ala Thr Lys Cys Ala Val Cys Leu Asp			
625	630	635	640
Thr Val His Phe Gly Arg Gln Ala Ser Lys Cys Leu Glu Cys Gln Val			
645	650	655	
Met Cys His Pro Lys Cys Ser Thr Cys Leu Pro Ala Thr Cys Gly Leu			
660	665	670	
Pro Ala Glu Tyr Ala Thr His Phe Thr Glu Ala Phe Cys Arg Asp Lys			
675	680	685	
Met Asn Ser Pro Gly Leu Gln Thr Lys Glu Pro Ser Ser Leu His			
690	695	700	
Leu Glu Gly Trp Met Lys Val Pro Arg Asn Asn Lys Arg Gly Gln Gln			
705	710	715	720
Gly Trp Asp Arg Lys Tyr Ile Val Leu Glu Gly Ser Lys Val Leu Ile			
725	730	735	
Tyr Asp Asn Glu Ala Arg Glu Ala Gly Gln Arg Pro Val Glu Glu Phe			
740	745	750	
Glu Leu Cys Leu Pro Asp Gly Asp Val Ser Ile His Gly Ala Val Gly			
755	760	765	
Ala Ser Glu Leu Ala Asn Thr Ala Lys Ala Asp Val Pro Tyr Ile Leu			
770	775	780	
Lys Met Glu Ser His Pro His Thr Thr Cys Trp Pro Gly Arg Thr Leu			
785	790	795	800
Tyr Leu Leu Ala Pro Ser Phe Pro Asp Lys Gln Arg Trp Val Thr Ala			
805	810	815	
Leu Glu Ser Val Val Ala Gly Gly Arg Val Ser Arg Glu Lys Ala Glu			
820	825	830	
Ala Asp Ala Lys Leu Leu Gly Asn Ser Leu Leu Lys Leu Glu Gly Asp			
835	840	845	
Asp Arg Leu Asp Met Asn Cys Thr Leu Pro Phe Ser Asp Gln Val Val			
850	855	860	
Leu Val Gly Thr Glu Glu Gly Leu Tyr Ala Leu Asn Val Leu Lys Asn			
865	870	875	880
Ser Leu Thr His Val Pro Gly Ile Gly Ala Val Phe Gln Ile Tyr Ile			
885	890	895	
Ile Lys Asp Leu Glu Lys Leu Leu Met Ile Ala Gly Glu Glu Arg Ala			
900	905	910	
Leu Cys Leu Val Asp Val Lys Lys Val Lys Gln Ser Leu Ala Gln Ser			
915	920	925	
His Leu Pro Ala Gln Pro Asp Ile Ser Pro Asn Ile Phe Glu Ala Val			
930	935	940	
Lys Gly Cys His Leu Phe Gly Ala Gly Lys Ile Glu Asn Gly Leu Cys			
945	950	955	960
Ile Cys Ala Ala Met Pro Ser Lys Val Val Ile Leu Arg Tyr Asn Glu			
965	970	975	
Asn Leu Ser Lys Tyr Cys Ile Arg Lys Glu Ile Glu Thr Ser Glu Pro			
980	985	990	
Cys Ser Cys Ile His Phe Thr Asn Tyr Ser Ile Leu Ile Gly Thr Asn			
995	1000	1005	
Lys Phe Tyr Glu Ile Asp Met Lys Gln Tyr Thr Leu Glu Glu Phe Leu			

1010	1015	1020
Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser		
1025	1030	1035
Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg		1040
1045	1050	1055
Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser		
1060	1065	1070
Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro		
1075	1080	1085
Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn		
1090	1095	1100
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro		
1105	1110	1115
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala		1120
1125	1130	1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu		
1140	1145	1150
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu		
1155	1160	1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly		
1170	1175	1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro		
1185	1190	1195
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His		1200
1205	1210	1215
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly		
1220	1225	1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg		
1235	1240	1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg		
1250	1255	1260
Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val		
1265	1270	1275
Trp Asp Gln Ser Ser Val		1280
1285		

<210> 6247
<211> 497
<212> DNA
<213> Homo sapiens

<400> 6247
gcggccgcag cgctgaatgg ggtggaccga cgttccctgc agcgttcaca aggctggctc
60
tagaagtgct ggagagggcc aagaggaggg cggtggactg gcatgccctg gagcgtccca
120
aaggctgcat gggggtcctt gccccggagg cgccccacct agagaaacag ccggcagccg
180
ccccgcagcg cgttctcccg ggagagaaaat attattcatc tgtgccagag gaaggagggg
240
caaccatgt ctatcgatat cacagaggcg agtcgaagct gcacatgtgc ttggacatag
300
ggaatggtca gagaaaaagac agaaaaaaaga catcccttgg tcctggaggc agctatcaa
360

tatcagagca tgctccagag gcatcccagc ctgtgagtac ggaactgctt acgcactggg
 420
 tttcaccacc gttgcaactc catgaaccag ttgacatggc tcttagaggg ctatttgaat
 480
 tgagtctata gtatttt
 497

<210> 6248
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 6248
 Met Gly Trp Thr Asp Val Pro Cys Ser Val His Lys Ala Gly Ser Arg
 1 5 10 15
 Ser Ala Gly Glu Gly Gln Glu Glu Gly Gly Leu Ala Cys Pro Gly
 20 25 30
 Ala Ser Gln Arg Leu His Gly Gly Pro Cys Pro Gly Gly Ala Pro Pro
 35 40 45
 Arg Glu Thr Ala Gly Ser Arg Pro Ala Ala Arg Ser Pro Gly Arg Glu
 50 55 60
 Ile Leu Phe Ile Cys Ala Arg Gly Arg Arg Gly Asn Pro Cys Leu Ser
 65 70 75 80
 Leu Ser Gln Arg Arg Val Glu Ala Ala His Val Leu Gly His Arg Glu
 85 90 95
 Trp Ser Glu Lys Arg Gln Lys Lys Asp Ile Pro Trp Ser Trp Arg Gln
 100 105 110
 Leu Ser Asn Ile Arg Ala Cys Ser Arg Gly Ile Pro Ala Cys Glu Tyr
 115 120 125
 Gly Thr Ala Tyr Ala Leu Gly Phe Thr Thr Val Ala Thr Pro
 130 135 140

<210> 6249
 <211> 1217
 <212> DNA
 <213> Homo sapiens

<400> 6249
 nntgagcaac aaaccgagtt ctggagaacg ccatcagctc gctgcttaaa ctggaaacaa
 60
 aagtctcaac ttccaacctc tttgcagcta ggagtggcca agtagcatag atctggtaa
 120
 tgaactgcag gtggaaattt ctgagaaggt ttccttctta aatagaaaaga ttaaaccaca
 180
 ggttccatta tgggtcgact ttagtggaaa gtcatcatcc tgacggccgc tgctcagggg
 240
 attggccaag cagctgcctt agctttgca agagaaggta ccaaagtcat agccacagac
 300
 attaatgagt ccaaacttca ggaactggaa aagtacccgg gtattcaaac tcgtgcctt
 360
 gatgtcacaa agaagaaaaca aattgatcag tttgccatg aagttgagag acttgatgtt
 420
 ctcttaatg ttgctggttt tgtccatcat ggaactgtcc tggattgtga ggagaaaagac
 480

tgggacttct cgatgaatct caatgtgcgc agcatgtacc tgatgatcaa ggcattcctt
 540
 cctaaaatgc ttgctcagaa atctggcaat attatcaaca tgtcttctgt ggcttccagc
 600
 gtcaaaggag ttgtgaacag atgtgtgtac agcacaacca aggcagccgt gattggcctc
 660
 acaaaaatctg tggctgcaga tttcatccag cagggcatca ggtgcaactg tgtgtgccca
 720
 ggaacagttg atacgcccattc tctacaagaa agaatacaag ccagagggaaa tcctgaagag
 780
 gcacggaatg atttcctgaa gagacaaaag acgggaagat tcgcaactgc agaagaaaata
 840
 gccatgtct gcgtgtatTTT ggcttctgtat gaatctgctt atgttaactgg taaccctgtc
 900
 atcattgatg gaggctggag cttgtgattt taggatctcc atggtgggaa ggaaggcagg
 960
 cccttccttat ccacagtgaa cctgggttacg aagaaaactc accaatcatc tccttcctgt
 1020
 taatcacatg ttaatgaaaaa taagctcttt ttaatgatgt cactgtttgc aagagtctga
 1080
 ttctttaagt atattaatct ctttgtaatc tcttctgaaa tcattgtaaa gaaataaaaaa
 1140
 tattgaactc atagcaggag aatagttttt aaaataaaatc tcgatttgtt agcaaaaaaaaa
 1200
 aaaaaaaaaa aaaaaaaaa
 1217

<210> 6250
 <211> 245
 <212> PRT
 <213> Homo sapiens

<400> 6250
 Met Gly Arg Leu Asp Gly Lys Val Ile Ile Leu Thr Ala Ala Ala Gln
 1 5 10 15
 Gly Ile Gly Gln Ala Ala Ala Leu Ala Phe Ala Arg Glu Gly Ala Lys
 20 25 30
 Val Ile Ala Thr Asp Ile Asn Glu Ser Lys Leu Gln Glu Leu Glu Lys
 35 40 45
 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln
 50 55 60
 Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn
 65 70 75 80
 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys
 85 90 95
 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met
 100 105 110
 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile
 115 120 125
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg
 130 135 140
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser
 145 150 155 160
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

165 170 175
Pro Gly Thr Val Asp Thr Pro Ser Leu Gln Glu Arg Ile Gln Ala Arg
180 185 190
Gly Asn Pro Glu Glu Ala Arg Asn Asp Phe Leu Lys Arg Gln Lys Thr
195 200 205
Gly Arg Phe Ala Thr Ala Glu Glu Ile Ala Met Leu Cys Val Tyr Leu
210 215 220
Ala Ser Asp Glu Ser Ala Tyr Val Thr Gly Asn Pro Val Ile Ile Asp
225 230 235 240
Gly Gly Trp Ser Leu
245

<210> 6251
<211> 1611
<212> DNA
<213> Homo sapiens

<400> 6251
ttttttttt tttttttttt tttttttttt tttttttttt ttttccagat caggaagttt
60 tattgtgac atgcaggaag agtccccatg tagtacaaaa atatgtctt atacaaactt
120 ttttgtgact ttttccgttt cttaacaata ggacttctct cagtgtgtga caccaggatgaa
180 gggctgaccc atcctcctct cctttgttc accaggaatg tcatacgaca catggcttga
240 ccttggaaagg gcccaagtctg tctgacaggg ctttgcagac ccggcggcta ttgccttgaa
300 aaggaggaga aagaccacgc acggggcagca gcctggaggg accccgggtggg ctgctgagag
360 ggggctccgc tgcgacgggc cctggcccag cttagggccc tcacaggagg acagtcaagg
420 480 tatagaaaag agggcatccc ccagccccac agcacaagac cctggccctc agcgctggac
540 agctgagaca gacgcaggct cgctgctcag gggagtaag tgctggcgtc cagtaggctc
600 ccacaggccc actgaggcag aggcattgagt cgcccaagtg ctggatgggg catggggaga
660 aaggggcgtg ggcagccctg ctactgctgg caagaggtgg ccccatttt tccagatggg
720 gaaactgagg cacaaggagg tttgggaaact tgcccaaggt cactcacagt gagtcagctt
780 ttttagggga ggagagcggc tcacactctg ggaaacacag tcacccccc actggggagc
840 agggccaggc aggagggggcc tcagggccca tgactgcctg gaggggacac tcagcccttc
900 tgaggacata tggggggtag gcctctgggg aagggtctt gcttggcatc aggcagggcc
960 aagtccagta agggcaaggg gagggggcat tctggtgaga acagcatttc tggcaagacg
1020 ggcatccact tcaaaaatctc ggctcaaaag ggcagcaggc ctgttctcaa gccaggcagg
1080

cagggtcccc caatccctac aattctcctg agtcctcac caccatggag gacccttgct
 1140
 agggtctacc gggagagtca ccacatctat tatgaggcaa gggcaactggg atatgttccc
 1200
 accatccctt aaacacaaga gtaggctagg ggagcgtgca ggcagccccc gtcacggcc
 1260
 aggccctgcag cccaaacccat gggcccttc gcactggag tccacgtgag ctcagtagcca
 1320
 1320
 cggggaagga tagagaaggg aacaggttaa cgcgctgtta cagcacctca gagaagccac
 1380
 tgagacggga gagaaagagc caggtctaga aaggcctccc atcaccggca gcagagaggg
 1440
 actggtgccc tgaaaaggga cagggactgg caggagggc ttccctgcct gggggtgagg
 1500
 agggagctca cgtgtgggct gtggattcct tgctgtccag ccaggctggg ggcagggagt
 1560
 ggcacatggac tgagccacct agagatggga gagaagttgg tatggtaan a
 1611

<210> 6252
<211> 100
<212> PRT
<213> Homo sapiens

<400> 6252
 Met Gly Gly Arg Pro Leu Gly Lys Gly Leu Cys Leu Ala Ser Gly Arg
 1 5 10 15
 Ala Lys Ser Ser Lys Gly Lys Gly Arg Gly His Ser Gly Glu Asn Ser
 20 25 30
 Ile Ser Gly Lys Thr Gly Ile His Phe Lys Ile Ser Ala Gln Lys Gly
 35 40 45
 Ser Arg Ala Val Leu Lys Pro Gly Arg Gln Gly Pro Pro Ile Pro Thr
 50 55 60
 Ile Leu Leu Ser Pro Ser Pro Pro Trp Arg Thr Leu Ala Arg Val Tyr
 65 70 75 80
 Arg Glu Ser His His Ile Tyr Tyr Glu Ala Arg Ala Leu Gly Tyr Val
 85 90 95
 Pro Thr Ile Pro
 100

<210> 6253
<211> 1953
<212> DNA
<213> Homo sapiens

<400> 6253
 nnngtgggta gcgggcaagg cgggcgccga gtttgcaaag gctcgcagcg gccagaaacc
 60
 cggctccgag cggcggcgcc cggcgttccg ctgcccgtga gctaaggacg gtccgcctcc
 120
 tctagccagc tccgaatccct gatccaggcg ggggccaggg gcccctcgcc tccccctctga
 180
 ggaccgaaga tgagcttcct cttcagcagc cgctttctaa aaacattcaa accaaagaag
 240

aatatccctg aaggatctca tcagtatgaa ctcttaaaac atgcagaagc aactcttagga
300
agtggaaatc tgagacaagc tggttatgtt cctgagggag aggatctcaa tgaatggatt
360
gctgtgaaca ctgtggattt cttaaccag atcaacatgt tatatggAAC tattacagaa
420
ttctgcactg aagcaagctg tccagtcatg tctgcaggc cgagatatga atatcactgg
480
gcagatggta ctaatattaa aaagccaatc aaatgttctg caccaaaaata cattgactat
540
ttgatgactt gggttcaaga tcagcttgat gatgaaactc ttttccttc taagatttgt
600
gtcccatttc ccaaaaactt tatgtctgtg gcaaagacta ttctaaagcg tctgttcagg
660
gtttatgccc atatttatca ccagcactt gattctgtga tgcagctgca agaggaggcc
720
cacctaaca ctcctttaa gcactttatt ttctttgttc aggagtttaa tctgattgt
780
aggcgtgagc tggcacctct tcaagaatta atagagaaac ttggatcaaa agacagataa
840
atgtttcttc tagaacacag ttacccctt gcttcatcta ttgctagaac tatctcattt
900
ctatctgtta tagacttagt atacaaactt taagaaaaca ggataaaaaag atacccattt
960
cctgtgtcta ctgataaaat tatcccaaag gtaggttgt gtgatagttt ccgagtaaga
1020
ccttaaggac acagccaaat cttaagtact gtgtgaccac tcttggttt atcacatgt
1080
catacttggt tgaatatgt gatggtaac ctgtagctt taaatttact tattatttt
1140
ttactcattt actcagtcat ttctttacaa gaaaatgatt gaatctgtt taggtgacag
1200
cacaatggac attaagaatt tccatcaata atttatgaat aagttccag aacaaattt
1260
ctaataacac aatcagattt gtttattct tttatTTAC gaataaaaaa tgtatTTTC
1320
agtacccctt agatTTAGAA catctgtgtc acttcagata acatTTAGT ttcaagttt
1380
tatggtagtg ttttataga taagatacgt ctatTTTC aaaattcatg attgcagttt
1440
aaatcatcat atgacgtgt ggtgggagca accaaagtta ttttacagg gactttatTT
1500
tttgatcttt atttgagatt gtttcatat ctatctaaat tattaggagt gtgtgtatca
1560
gaagtaattt tttaatgtct tctaaggatg gtctccagg ctTTAAACT gaaaagctt
1620
attcagatag tagctttgg ctgagaaaaag gaatccaaaa tattaataaa tttagatctc
1680
aaaaccacta ttttattat ttcatttattt ttcagaggcc taaaattct gggtaagaga
1740
atggagggaaa atactcagag tacttgatta ttTTATTTCC ttTTATTAAA aaattactt
1800
tatgtttta ttgtcttttgc agccttagtt aagagtagtg tagaaatgca tgaacttcat
1860

cctaataagg ataaaactta aggaaaacca caataaacca tgaaggtgta cacatcttaa

1920

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa

1953

<210> 6254

<211> 216

<212> PRT

<213> Homo sapiens

<400> 6254

Met Ser Phe Leu Phe Ser Ser Arg Ser Ser Lys Thr Phe Lys Pro Lys

1 5 10 15

Lys Asn Ile Pro Glu Gly Ser His Gln Tyr Glu Leu Leu Lys His Ala

20 25 30

Glu Ala Thr Leu Gly Ser Gly Asn Leu Arg Gln Ala Val Met Leu Pro

35 40 45

Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe

50 55 60

Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr

65 70 75 80

Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His

85 90 95

Trp Ala Asp Gly Thr Asn Ile Lys Pro Ile Lys Cys Ser Ala Pro

100 105 110

Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp

115 120 125

Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe

130 135 140

Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala

145 150 155 160

His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu

165 170 175

Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu

180 185 190

Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile

195 200 205

Glu Lys Leu Gly Ser Lys Asp Arg

210 215

<210> 6255

<211> 622

<212> DNA

<213> Homo sapiens

<400> 6255

nntccggagg ctgagacagg agaatcgctt gaaccaggaa ggccgaggtt gcagttagcc

60

gagatcatgc cattgcactc cagcctggc aacagagtga gacttcatct caaaaaaaaa

120

aaagccacag tggctgcctt cacagccagc gagggccacg cacatcccacg ggtagtggag

180

ctacccaaga cggatgaggg cctaggcttc aacatcatgg gtggcaaaga gcaaaactcg

240

cccatctaca tctcccggtt catcccaggg ggtgtggctg accgccatgg aggcctcaag
 300
 cgtggggatc aactgttgtc ggtgaacggt gtgagcgttg agggtgagca gcatgagaag
 360
 gcggtgttggagc tgctgaaggc ggcccaggc tcgggtgaagc tgggtgtccg ttacacaccg
 420
 cgagtgttggaggc ggcccgggttc gagaagatgc gctctgcccgc cggcgccaa
 480
 cagcatcaga gctactcgtc cttggagtct cgagggttggaa accacagatc tggacgttca
 540
 cgtgcactct cttcctgtac agtatttatt gttcctggca ctttatttaa agattttga
 600
 ccctcaaaaa aaaaaaaaaaa aa
 622

<210> 6256
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 6256
 Met Pro Leu His Ser Ser Leu Gly Asn Arg Val Arg Leu His Leu Lys
 1 5 10 15
 Lys Lys Lys Ala Thr Val Ala Ala Phe Thr Ala Ser Glu Gly His Ala
 20 25 30
 His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
 35 40 45
 Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
 50 55 60
 Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
 65 70 75 80
 Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
 85 90 95
 Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
 100 105 110
 Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
 115 120 125
 Glu Lys Met Arg Ser Ala Arg Arg Arg Gln Gln His Gln Ser Tyr Ser
 130 135 140
 Ser Leu Glu Ser Arg Gly
 145 150

<210> 6257
 <211> 2216
 <212> DNA
 <213> Homo sapiens

<400> 6257
 nttttttttt tttttttttt tttttgttc agcaatcttt attcagttct tcttgggggt
 60
 gggatgcctc ccttccccatg ctccccacccc tcccatccca gaactccgtt gggctcagtg
 120
 tcctctgttg agggaaaggtc ttgggtgccc gatgcctact ctgcaggaga gggaggaacc
 180

ttgtcccttt gccccggatcg ctggtctctt ctgttgtggg gaagaaggaa ggtggggaggg
240
gcactgtcca ccagcaactca gagctccatt atgtccccag ctggggttgc agggtagggg
300
ggactggggg tgccccccag cctcagcaga cggagggcct cagggatgag gctgccagga
360
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 <211> 340
 <212> PRT
 <213> Homo sapiens

<400> 6258
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 Ala Ile Phe Ser Leu Ser Ser Ala Leu Ser Ser Glu Ala Lys Glu Glu
 50 55 60
 Ser Lys Lys Pro Val Val Thr Phe Gln Ala His Asp Gly Pro Val Tyr
 65 70 75 80
 Ser Met Val Ser Thr Asp Arg His Leu Leu Ser Ala Gly Asp Gly Glu
 85 90 95
 Val Lys Ala Trp Leu Trp Ala Glu Met Leu Lys Lys Gly Cys Lys Glu
 100 105 110
 Leu Trp Arg Arg Gln Pro Pro Tyr Arg Thr Ser Leu Glu Val Pro Glu
 115 120 125
 Ile Asn Ala Leu Leu Leu Val Pro Lys Glu Asn Ser Leu Ile Leu Ala
 130 135 140
 Gly Gly Asp Cys Gln Leu His Thr Met Asp Leu Glu Thr Gly Thr Phe
 145 150 155 160
 Thr Arg Val Leu Arg Gly His Thr Asp Tyr Ile His Cys Leu Ala Leu
 165 170 175
 Arg Glu Arg Ser Pro Glu Val Leu Ser Gly Gly Glu Asp Gly Ala Val
 180 185 190
 Arg Leu Trp Asp Leu Arg Thr Ala Lys Glu Val Gln Thr Ile Glu Ser
 195 200 205
 Ile Ser Thr Arg Ser Ala Arg Gly Pro Thr Met Gly Ala Gly Leu Asp
 210 215 220
 Val Trp Thr Asp Ser Asp Trp Met Val Cys Gly Gly Gly Pro Ala Leu
 225 230 235 240
 Thr Leu Trp His Leu Arg Ser Ser Thr Pro Thr Thr Ile Phe Pro Ile
 245 250 255
 Arg Ala Pro Gln Lys His Val Thr Phe Tyr Gln Asp Leu Ile Leu Ser

260	265	270
Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu		
275	280	285
Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu		
290	295	300
Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly		
305	310	315
Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe		
325	330	335
Ser Leu Ser Phe		
340		

<210> 6259

<211> 384

<212> DNA

<213> Homo sapiens

<400> 6259

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<210> 6260

<211> 128

<212> PRT

<213> Homo sapiens

<400> 6260

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Leu Glu Ile Pro Asp Ala Phe Asp Arg Thr Glu Asn Met Leu Ser Met		
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Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr		
35	40	45
Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp		
50	55	60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser		
65	70	75
		80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys		
85	90	95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu		
100	105	110
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115

120

125

<210> 6261
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<212> DNA
<213> Homo sapiens

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1380

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<210> 6262
 <211> 431
 <212> PRT
 <213> Homo sapiens

<400> 6262
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 35 40 45
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 50 55 60
 Gly Thr Leu Asn Lys Val Phe Ala Ser Gln Trp Leu Asn His Arg Gln
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 Val Val Cys Gly Thr Lys Cys Asn Thr Leu Phe Val Val Asp Val Gln
 85 90 95
 Thr Ser Gln Ile Thr Lys Ile Pro Ile Leu Lys Asp Arg Glu Pro Gly
 100 105 110
 Gly Val Thr Gln Gln Gly Cys Gly Ile His Ala Ile Glu Leu Asn Pro
 115 120 125
 Ser Arg Thr Leu Leu Ala Thr Gly Gly Asp Asn Pro Asn Ser Leu Ala
 130 135 140
 Ile Tyr Arg Leu Pro Thr Leu Asp Pro Val Cys Val Gly Asp Asp Gly
 145 150 155 160
 His Lys Asp Trp Ile Phe Ser Ile Ala Trp Ile Ser Asp Thr Met Ala
 165 170 175
 Val Ser Gly Ser Arg Asp Gly Ser Met Gly Leu Trp Glu Val Thr Asp
 180 185 190
 Asp Val Leu Thr Lys Ser Asp Ala Arg His Asn Val Ser Arg Val Pro

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Val Tyr Ala His Ile Thr His Lys Ala Leu Lys Asp Ile Pro Lys Glu		
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Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn		
225	230	235
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly		
325	330	335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		
385	390	395
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly		
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<210> 6263

<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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 <212> PRT
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 Asn Asn Trp Asp Leu Val Ala Ala Ile Asn Gly Val Ile Pro Gln Glu
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 Asn Gly Ile Leu Gln Ser Glu Tyr Gly Gly Glu Thr Ile Pro Gly Pro
 50 55 60
 Ala Phe Asn Pro Ala Ser His Pro Ala Ser Ala Pro Thr Ser Ser Ser
 65 70 75 80
 Ser Ser Ala Phe Arg Pro Val Met Pro Ser Arg Gln Ile Val Glu Arg
 85 90 95
 Gln Pro Arg Met Leu Asp Phe Arg Val Glu Tyr Arg Asp Arg Asn Val
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 115 120 125
 Leu Glu Asn Glu Leu Gln Ile Pro Val Ser Lys Met Leu Leu Lys Gly
 130 135 140
 Trp Lys Thr Gly Asp Val Glu Asp Ser Thr Val Leu Lys Ser Leu His
 145 150 155 160
 Leu Pro Lys Asn Asn Ser Leu Tyr Val Leu Thr Pro Asp Leu Pro Pro
 165 170 175
 Pro Ser Ser Ser His Ala Gly Ala Leu Gln Glu Ser Leu Asn Gln
 180 185 190
 Asn Phe Met Leu Ile Ile Thr His Arg Glu Val Gln Arg Glu Tyr Asn
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 210 215 220
 Tyr Asp Leu Thr Ser Ile Pro Val Arg His Gln Leu Trp Glu Gly Trp
 225 230 235 240
 Pro Thr Ser Ala Thr Asp Asp Ser Met Cys Leu Ala Glu Ser Gly Leu
 245 250 255
 Ser Tyr Pro Cys His Arg Leu Thr Val Gly Arg Arg Ser Ser Pro Ala
 260 265 270
 Gln Thr Arg Glu Gln Ser Glu Glu Gln Ile Thr Asp Val His Met Val

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Ser Asp Ser Asp Gly Asp Asp Phe Glu Asp Ala Thr	Glu Phe Gly Val	
290	295	300
Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala	Leu Arg Lys Ser	
305	310	315
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Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu	Asn Glu Gly Asp	
325	330	335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg	Tyr Gly Asp Cys	
340	345	350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala	Phe Gln Glu Ala	
355	360	365
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala	Ile Tyr Leu His	
370	375	380
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser	Gln Met Leu Cys	
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Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe	Ile Thr Trp Ala	
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Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe	Leu Thr Met Cys	
420	425	430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile	Arg Thr Gln Lys	
435	440	445
Thr Asp Gln Phe Pro Leu Phe Ile Ile Met Gly Lys	Arg Ser Ser	
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Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr	Thr Val Asp Glu Leu	
465	470	475
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485	490	495
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530	535	540
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545	550	555
560		
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu	Asn Ala Glu Pro	
565	570	575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu	Phe Leu Glu Arg	
580	585	590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe	Asp Phe Val Ala	
595	600	605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu	Ser Thr Phe Pro	
610	615	620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser	Leu Leu Glu Val	
625	630	635
640		
Lys Leu Phe Pro Gln Glu Thr Leu Phe Leu Glu Ala	Lys Glu	
645	650	

<210> 6265
<211> 1344
<212> DNA
<213> Homo sapiens

<400> 6265

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120
tctgtggagg aagagatgca aagtacagtt cgagagcaca gagatggagg tcatgcagg
180
ggaatcttca acagatacaa tattctcaag attcagaagg tttgtAACAA gaaactatgg
240
gaaagataca ctcaccggag aaaagaagtt tctgaagAAA accacaacca tgccaatgaa
300
cgaatgctat ttcatgggtc tcctttgtg aatgcaatta tccacAAagg ctttgatgaa
360
aggcatgcgt acatagggtgg tatgtttggc gctggcattt atttgtcga aaactttcc
420
aaaagcaatc aatatgtata tggaattggc ggaggtactg ggtgtccagt tcacaaagac
480
agatcttgtt acatttgcCA caggcagctg ctctttgcc gggtaacctt gggaaagtct
540
ttccctgcagt tcagtgcAAT gaaaatggcA catttcctc caggtcatca ctcagtcact
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660
gcttatcctg agtatttaat tacttaccag attatgaggc ctgaaggat ggtcgatgg
720
taaatAGTta tttaagAAA ctaattccac tgaacctAAA atcatcaaAG cagcagtggc
780
ctctacgttt tactcctttg ctgaaaaAAA atcatcttgc ccacaggcct gtggcaaaag
840
gataAAAatg tgaacgaagt ttaacattct gacttgataa agctttata atgtacagt
900
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960
gttgcgtgtA ctaaattata aacagagtta acttgaacct tttatATGTT atgcattgt
1020
tctaacaacA tgtaatgccc tcaacagaac taatTTACT aatacaatac tgtgttctt
1080
aaaacacAGC atttacactg aatacaattt cattgtAAA actgtAAATA agagctttg
1140
tactagcccA gtatttattt acattgcTTT gtaatataAA tctgttttag aactgcagcg
1200
gtttacaaaaA tttttcata tgtattgttc atctatactt catcttacat cgtcatgatt
1260
gagtgatctt tacatttgat tccagaggct atgttcagtt gttagttggg aaagattgag
1320
ttatcagatt taatTTGCCG atgg
1344

<210> 6266

<211> 240

<212> PRT

<213> Homo sapiens

<400> 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro

1	5	10	15												
Tyr	Leu	Thr	Leu	Asn	Thr	Ser	Gly	Ser	Gly	Thr	Ile	Leu	Ile	Asp	Leu
20							25								30
Ser	Pro	Asp	Asp	Lys	Glu	Phe	Gln	Ser	Val	Glu	Glu	Glu	Met	Gln	Ser
35							40								45
Thr	Val	Arg	Glu	His	Arg	Asp	Gly	Gly	His	Ala	Gly	Gly	Ile	Phe	Asn
50							55								60
Arg	Tyr	Asn	Ile	Leu	Lys	Ile	Gln	Lys	Val	Cys	Asn	Lys	Lys	Leu	Trp
65							70								80
Glu	Arg	Tyr	Thr	His	Arg	Arg	Lys	Glu	Val	Ser	Glu	Glu	Asn	His	Asn
85															95
His	Ala	Asn	Glu	Arg	Met	Leu	Phe	His	Gly	Ser	Pro	Phe	Val	Asn	Ala
100									105						110
Ile	Ile	His	Lys	Gly	Phe	Asp	Glu	Arg	His	Ala	Tyr	Ile	Gly	Gly	Met
115									120						125
Phe	Gly	Ala	Gly	Ile	Tyr	Phe	Ala	Glu	Asn	Ser	Ser	Lys	Ser	Asn	Gln
130									135						140
Tyr	Val	Tyr	Gly	Ile	Gly	Gly	Gly	Thr	Gly	Cys	Pro	Val	His	Lys	Asp
145									150						160
Arg	Ser	Cys	Tyr	Ile	Cys	His	Arg	Gln	Leu	Leu	Phe	Cys	Arg	Val	Thr
165															175
Leu	Gly	Lys	Ser	Phe	Leu	Gln	Phe	Ser	Ala	Met	Lys	Met	Ala	His	Ser
180									185						190
Pro	Pro	Gly	His	His	Ser	Val	Thr	Gly	Arg	Pro	Ser	Val	Asn	Gly	Leu
195									200						205
Ala	Leu	Ala	Glu	Tyr	Val	Ile	Tyr	Arg	Gly	Glu	Gln	Ala	Tyr	Pro	Glu
210									215						220
Tyr	Leu	Ile	Thr	Tyr	Gln	Ile	Met	Arg	Pro	Glu	Gly	Met	Val	Asp	Gly
225									230						240

<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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120gatgacgcctt tcctgcagtt ccgaaggAAC gtgttcttcc caaAGCggcg ggagctccag
180atccatgacg aggaggtcct gcggctgctc tatgaggagg ccaaggcaa cgtgctggct
240gcacggtacc cgtgcacgt ggaggactgc gaggctctgg gcgccttgt gtgcgcgtg
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328

<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268
Ala Glu Trp Gly Cys Pro Ala Val Thr Gln Pro Leu Ser Pro Asp Glu
1 5 10 15
Pro Phe Leu Gln Phe Arg Arg Asn Val Phe Phe Pro Lys Arg Arg Glu
20 25 30
Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala
35 40 45
Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys
50 55 60
Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
65 70 75 80
Pro Gly Arg

<210> 6269
<211> 923
<212> DNA
<213> Homo sapiens

<400> 6269
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gctttagatc aactgcggga cgtgatttag tctcaggagg aactaatcca ccagctgagg
120
aacgtgtatgg ttctccagga cgaaaatttt gtcaagtttcaag aagagtccca ggcagtggag
180
aagaagctgg tggaaagagaa agctgccccat gccaaaacca aggtcctcct ggccaaggaa
240
gaggagaagt tacagtttgc cctcggagag gtagaggtgc tatccaagca gctggagaaa
300
gagaagctgg cctttgaaaaa agcgctctcc agtgtcaaga gcaaagtccct tcaggagtcc
360
agcaagaagg accagctcat caccaagtgc aatgagattt agtctcacat tataaagcaa
420
gaagatatac ttaatggcaa agagaatgag attaaagagt tgcagcaagt tatcagccag
480
cagaaacaga tcttcagcccc accaccagcc ggctccgttg caggaatcac atgtctgact
540
tccggatcca gaagcagcag gaaagctaca tggcccgagg tctggaccag aagcataaga
600
aagcctcagg gacacgtcag gcccgcagcc accagcatcc cagggaaaaaa taaaatggcc
660
gccgccttcc tttctctgg ctgttatccc cagcctctgc cttctctgtc ctgggagtcc
720
ccagcctcta gcccctgcta cttccctccc tcttggatag tggttaggggt ccacaaggtg
780
ggggcttcta gccttagggga ggagctgggt ctttgttgc tggtaggcac caccgcttcc
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900
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923

<210> 6270

<211> 307
<212> PRT
<213> *Homo sapiens*

<400> 6270
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 Ser Val Cys Leu Ala Leu Asp Gln Leu Arg Asp Val Ile Glu Ser Gln
 20 25 30
 Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
 35 40 45
 Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
 50 55 60
 Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
 65 70 75 80
 Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
 85 90 95
 Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
 100 105 110
 Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
 115 120 125
 Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
 130 135 140
 Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
 145 150 155 160
 Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
 165 170 175
 Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
 180 185 190
 Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
 195 200 205
 Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
 210 215 220
 Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
 225 230 235 240
 Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
 245 250 255
 Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
 260 265 270
 Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
 275 280 285
 Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
 290 295 300
 Leu Val Asn
 305

<210> 6271
<211> 1437
<212> DNA
<213> *Homo sapiens*

<400> 6271
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tgtggaggca cagttggtgc tatttcact tgtccactag aagtcattaa gacacggttg
120
cagtctcaa gattagctct ccggacagtc tactatcctc aggttcatct ggggaccatt
180
agtggagctg gaatggtgag accaacatcc gtgacacctg gactcttca ggttctgaag
240
gctgtatact ttgcatgtta ctccaaagcc aaagagcaat ttaatggcat tttcggtcct
300
aacagcaata ttgtgcacatct tttctcagct ggctctgcag ctttatcac aaattccta
360
atgaatccta tatggatggt taaaacccga atgcagctag aacagaaagt gaggggctct
420
aagcagatga atacactcca gtgtgctcgt tacgttacc agaccgaagg cattcgtggc
480
ttctatagag gattaactgc ctcgtatgct ggaatttccg aaactataat ctgctttgct
540
atttatgaaa gtttaaagaa gatatctgaaa gaagctccat tagcctctc tgcaaattgg
600
actgagaaaa attccacaag ttttttggc cttatggcag ctgctgctct ttctaagggc
660
tgtgcctcct gcattgctta tccacacgaa gtcataagga cgaggctccg ggaagagggc
720
accaagtaca agtctttgtt ccagacggcg cgccctgggt tccgggaaga aggctacctt
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840
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900
aaatttgctt ctagaagaat aaaactgaaa aactctagag aaaaaaaaaa cccattgt
960
gttttagaaa ttgagactg aaacaggaaa ggcataaaa tatctggttc atatcacctg
1020
ttggacattt ccttttggat tcatgcttc tggaggttt aaattcatta acgttaatag
1080
ttaattataa cttttttttt aacttaagag gattcagggt taagcaccaa ctaaattaaa
1140
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1200
tgaaggactt aagtaattca gataaacctg ccctagaact gcagagaaaa atgataaaagt
1260
gagaatacaa cttgttttat aatctgactt taagatcttgc cactgtttaga cagggaaagaa
1320
gtgtcgcatt ttggctgggc actgtggctc acgcctgtaa tcccgact ttggaggcc
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1437

<210> 6272

<211> 296

<212> PRT

<213> Homo sapiens

<400> 6272

Xaa Met Ala Thr Gly Gly Gln Gln Lys Glu Asn Thr Leu Leu His Leu

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20	25		30
Leu Glu Val Ile Lys Thr Arg Leu Gln Ser Ser Arg Leu Ala Leu Arg			
35	40		45
Thr Val Tyr Tyr Pro Gln Val His Leu Gly Thr Ile Ser Gly Ala Gly			
50	55		60
Met Val Arg Pro Thr Ser Val Thr Pro Gly Leu Phe Gln Val Leu Lys			
65	70		75
			80
Ala Val Tyr Phe Ala Cys Tyr Ser Lys Ala Lys Glu Gln Phe Asn Gly			
85	90		95
Ile Phe Val Pro Asn Ser Asn Ile Val His Leu Phe Ser Ala Gly Ser			
100	105		110
Ala Ala Phe Ile Thr Asn Ser Leu Met Asn Pro Ile Trp Met Val Lys			
115	120		125
Thr Arg Met Gln Leu Glu Gln Lys Val Arg Gly Ser Lys Gln Met Asn			
130	135		140
Thr Leu Gln Cys Ala Arg Tyr Val Tyr Gln Thr Glu Gly Ile Arg Gly			
145	150		155
			160
Phe Tyr Arg Gly Leu Thr Ala Ser Tyr Ala Gly Ile Ser Glu Thr Ile			
165	170		175
Ile Cys Phe Ala Ile Tyr Glu Ser Leu Lys Lys Tyr Leu Lys Glu Ala			
180	185		190
Pro Leu Ala Ser Ser Ala Asn Gly Thr Glu Lys Asn Ser Thr Ser Phe			
195	200		205
Phe Gly Leu Met Ala Ala Ala Leu Ser Lys Gly Cys Ala Ser Cys			
210	215		220
Ile Ala Tyr Pro His Glu Val Ile Arg Thr Arg Leu Arg Glu Glu Gly			
225	230		235
			240
Thr Lys Tyr Lys Ser Phe Val Gln Thr Ala Arg Leu Val Phe Arg Glu			
245	250		255
Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg			
260	265		270
Gln Ile Pro Asn Thr Ala Ile Val Leu Ser Thr Tyr Glu Leu Ile Val			
275	280		285
Tyr Leu Leu Glu Asp Arg Thr Gln			
290	295		

<210> 6273
<211> 2355
<212> DNA
<213> *Homo sapiens*

<400> 6273
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120
tggactggct caccaccagg ccgcggccgg cagctggtgg acaaggacag caccttcctc
180
agcacgctgg agcaccacct gagccgcatac ctgaaggacg tgaaggcagca ccacgtcaag
240
gctgacaaggc gggaccacaga gtttgttttc tacgaccacgc tgaagcaagt gatgaatgcg
300

tacagagtca agccggccgt ctttgacctg ctccctggctg ttggcattgc tgcctacctc
360
ggcatggcct acgtggctgt ccaggtgagc agtgcggcagg ctcagcaccc cagccctc
420
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480
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600
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780
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1020
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1080
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1140
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1200
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1440
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1500
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1560
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1680
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1740
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1800
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1860
acctggggccg gcccattggga gtcctggggtt ctgtccagat aggaccaggg ggtctcactt
1920

tggccaccag ttcttcggcc agcacctctg ccctccagaa cctgcagcct ggaggggtga
1980
ggggacaacc acccctctt cctccaggtt ggcagggac cctcttcgc cgtctgcct
2040
gcgggttgcc cgccctctcc agagacttgc ccaagggccc atcaccactg gcctctggc
2100
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2160
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2220
agggagctc cttccctcct tcctggacag gtcgtcagga tggatgact gactgaccgt
2280
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2340
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2355

<210> 6274
<211> 70
<212> PRT
<213> Homo sapiens

<400> 6274
Asp Pro Glu Phe Val Phe Tyr Asp Gln Leu Lys Gln Val Met Asn Ala
1 5 10 15
Tyr Arg Val Lys Pro Ala Val Phe Asp Leu Leu Leu Ala Val Gly Ile
20 25 30
Ala Ala Tyr Leu Gly Met Ala Tyr Val Ala Val Gln Val Ser Ser Ala
35 40 45
Gln Ala Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln Arg Leu Leu
50 55 60
Val Lys Ala Lys Thr Gln
65 70

<210> 6275
<211> 1534
<212> DNA
<213> Homo sapiens

<400> 6275
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120
gcctcctgcc ccgcgcgatg agactcccc ggccggacgct gtgtgccctg gccttggacg
180
tgacctctgt gggtcctccc gttgctgcct gcggccgccc agccaacctg attgaaagga
240
gcccggcgcgc gcagcttgc gggcccgacc ggctccgcgt ggcaggtgaa gtgcaccgg
300
ttagaacctc tgacgtctct caagccactt tagccagtgt agccccagta tttactgtga
360
caaaaatttga caaacaggga aacgttactt ctttgaaag gaagaaaact gaattataacc
420

aagagttagg tcttcaagcc agagatttg aatttcagca tgtaatgagt atcacagtca
 480
 gaaacaata gattatcatg agaatggagt atttgaagc tgtgataact ccagagtgc
 540
 ttctgatatt agattatcg aattttaact tagagcaatg gctgttccgg gaactccctt
 600
 cacagttgtc tggagagggt caactcgta cataccctt accttttag ttttagagcta
 660
 tagaaggact cctgcaatat tggatcatgt tgatcttag atcaacaccc ttcaggggaa
 720
 acttagcatt ttgcagccac tgatccttga gaccttggat gcttttgtgg accccaaaca
 780
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 840
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 900
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 1020
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 1200
 ttggaaatctt cccttgaaga ggaccataga atttttggc tgattacagg aattatgttc
 1260
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 1320
 ccattgcctc ctatgatggc ttcttacct aaaaagactc ttctggcaga tagaagcatg
 1380
 gaattaaaaa atagccttag actggatgga cttggatcag gaaggagcat cctaacaac
 1440
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 1500
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 1534

<210> 6276
 <211> 172
 <212> PRT
 <213> Homo sapiens

<400> 6276
 Met Gly Val Thr His Lys Ser Leu Xaa Lys Ser Ser Ala Gly Ile Asp
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 His Ala Glu Glu Met Glu Leu Leu Leu Glu Asn Tyr Tyr Arg Leu Ala
 20 25 30
 Asp Asp Leu Ser Asn Ala Ala Arg Glu Leu Arg Val Leu Ile Asp Asp
 35 40 45
 Ser Gln Ser Ile Ile Phe Ile Asn Leu Asp Ser His Arg Asn Val Met
 50 55 60
 Ile Arg Leu Asn Leu Gln Leu Thr Met Gly Thr Phe Ser Leu Ser Leu

65	70	75	80
Phe	Gly	Leu	Met
Gly	Leu	Met	Gly
Val	Ala	Phe	Gly
		Met	Asn
		Leu	Glu
		Ser	Ser
		Leu	
85		90	95
Glu	Glu	Asp	His
Arg	Ile	Phe	Trp
		Leu	Ile
		Thr	Gly
		Ile	Met
		Phe	Met
100		105	110
Gly	Ser	Gly	Leu
		Ile	Trp
		Arg	Arg
		Leu	Leu
		Ser	Phe
		Leu	Gly
			Arg
115		120	125
Leu	Glu	Ala	Pro
Leu	Pro	Pro	Pro
		Met	Met
		Ala	Ser
		Ser	Leu
		Leu	Pro
		Lys	Lys
130		135	140
Leu	Leu	Ala	Asp
		Asp	Arg
		Ser	Met
		Glu	Leu
		Lys	Ser
		Asn	Leu
		Ser	Arg
145		150	155
Gly	Leu	Gly	Ser
		Ser	Ile
		Ile	Leu
		Thr	Asn
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<210> 6277

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 6277

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<210> 6278
 <211> 399
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<400> 6278
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 Ser Arg Ala Glu Ser Ser Ser Gly Gly Thr Val Pro Ser Ser Ala
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 Gly Ile Leu Glu Gln Gly Pro Ser Pro Gly Asp Gly Ser Pro Pro Lys
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 Pro Pro Pro Ser Ser Gln His Pro Gly Gly Thr Pro Xaa Ser Leu Ser
 210 215 220
 Pro Ile Gln Ala Pro Asn His Pro Pro Pro Gln Pro Pro Thr Gln Ala
 225 230 235 240
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 245 250 255
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 260 265 270
 Pro Gln Thr Pro Thr Pro Pro Ser Thr Pro Pro Leu Gly Lys Gln Asn
 275 280 285
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Lys Ile Val Thr Asp Ser Asn Ser Arg Val Ser Glu Pro His Arg Ser
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<211> 2795
<212> DNA
<213> Homo sapiens

<400> 6279
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 <212> PRT
 <213> Homo sapiens

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 Arg His Lys Phe Thr Gly Lys Lys Val Thr Glu Glu Leu Leu Thr Asp
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 115 120 125
 Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg Lys Arg
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Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile		
370	375	380
Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln		
385	390	395
Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu		
405	410	415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln		
420	425	430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu		
435	440	445
Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser		
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Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg		
465	470	475
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys		
485	490	495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val		
500	505	510
Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn		
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Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys		
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Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val		
545	550	555
Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile		
565	570	575
Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe		
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<210> 6281

<211> 741

<212> DNA

<213> Homo sapiens

<400> 6281

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 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 6282
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 Gln Ser Arg Gly Met Tyr Ser Asn Arg Met Arg Ser Tyr Lys Gln Glu
 65 70 75 80
 Met Gly Lys Leu Glu Thr Asp Phe Lys Arg Ser Arg Ile Ala Tyr Ser
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 Asp Glu Val Arg Asn Glu Leu Leu Gly Asp Asp Gly Asn Ser Ser Glu
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 Asn Gln Arg Ala His Leu Leu Asp Asn Thr Glu Arg Leu Glu Arg Ser
 115 120 125
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 <211> 2312
 <212> DNA
 <213> Homo sapiens

<400> 6283
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<400> 6284
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 35 40 45
 Ala Ser Val Ile Ser Gly ile Asn Glu Lys Leu Phe Phe Ser Leu Lys
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 2100
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 2160
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 2220
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 2280
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 2340
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<210> 6286

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6286

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				20				25				30			
Ala	Gly	Asn	Ile	Tyr	Leu	Gly	Thr	Ser	Pro	Pro	Ser	Gln	Glu	Pro	Ser
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<210> 6287

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 6287

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1674

<210> 6288

<211> 269
<212> PRT
<213> Homo sapiens

<400> 6288
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Asp Val Lys Asn Phe Tyr Leu Met Thr Asn Gly Phe His Met Thr Trp
35 40 45
Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
50 55 60
Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
65 70 75 80
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
85 90 95
Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val
100 105 110
Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
115 120 125
Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
130 135 140
Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala
145 150 155 160
Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
165 170 175
Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
180 185 190
Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
195 200 205
Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
210 215 220
Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
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Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly Pro Ser Thr Ser Ser Thr
245 250 255
Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
260 265

<210> 6289
<211> 1321
<212> DNA
<213> Homo sapiens

<400> 6289
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240

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 480
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 540
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 660
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 720
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 840
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 1080
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 1320
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 1321

<210> 6290
 <211> 172
 <212> PRT
 <213> Homo sapiens

<400> 6290
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 20 25 30
 Ser Pro Asp Glu Gly Leu Ile Glu Asp Leu Thr Ile Glu Asp Lys Ala
 35 40 45
 Val Glu Gln Leu Ala Glu Gly Leu Leu Ser His Tyr Leu Pro Asp Leu
 50 55 60
 Gln Arg Ser Lys Gln Ala Leu Gln Glu Leu Thr Gln Asn Gln Val Val

65	70	75	80
Leu	Leu	Asp	Thr
Leu	Glu	Gln	Glu
Ile	Ile	Ser	Lys
		Phe	Lys
		Glu	Cys
			His
85		90	95
Ser	Met	Leu	Asp
Ile	Asn	Ala	Leu
		Phe	Ala
		Glu	Ala
		Lys	Tyr
			His
100		105	110
Ala	Lys	Leu	Val
Asn	Ile	Arg	Lys
		Glu	Met
		Leu	Met
			Leu
			His
			Glu
115		120	125
Thr	Ser	Leu	Lys
		Lys	Arg
		Ala	Leu
		Lys	Lys
		Leu	Gln
			Gln
			Lys
			Arg
			Gln
130		135	140
Lys	Glu	Leu	Glu
		Arg	Glu
		Gln	Gln
		Arg	Glu
		Lys	Gly
			Phe
			Glu
145		150	155
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<210> 6291
<211> 2718
<212> DNA
<213> Homo sapiens

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240
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300
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360
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420
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480
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<210> 6292
 <211> 497
 <212> PRT
 <213> Homo sapiens

<400> 6292
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 35 40 45
 Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg Trp
 50 55 60
 Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly Asp
 65 70 75 80
 Ala Leu Trp Leu Arg Phe Lys Tyr Ser Phe Phe Asp Leu Asp Pro
 85 90 95
 Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg Trp
 100 105 110
 Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Met Met Val
 115 120 125
 Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly Glu
 130 135 140
 Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp Val
 145 150 155 160
 Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr Asp
 165 170 175
 Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp Tyr Leu Arg
 180 185 190
 Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His Trp
 195 200 205
 Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp Glu
 210 215 220
 Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu Val
 225 230 235 240
 Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu Leu
 245 250 255
 Val Pro Ser Pro Glu Gly Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp
 260 265 270
 Glu Gln Gln Tyr Ala Arg Trp Met Ala Gly Cys Arg Leu Ala Ser Lys
 275 280 285
 Gly Arg Thr Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile
 290 295 300
 Leu Ala Phe Leu Ser Leu Gln His Gly Gln Trp Gly Pro Arg Gln Pro
 305 310 315 320
 Pro Pro Arg Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu
 325 330 335
 Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro

340	345	350
Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln	Leu Ser Leu Ala Glu	
355	360	365
Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser	Leu Pro Asp Phe Gly	
370	375	380
Ile Ser Tyr Val Met Val Arg Phe Lys Gly	Ser Arg Lys Asp Glu Ile	
385	390	400
Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg	Ile Asp Leu Ala Val Gly	
405	410	415
Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met	Arg Gln Trp Asn Val	
420	425	430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe	Asp Glu His Ile Asn	
435	440	445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg	Ile Val His Glu Tyr	
450	455	460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu	Arg Ala Arg Gly Glu	
465	470	475
Glu Leu Asp Glu Asp Leu Phe Leu Gln Leu Thr	Gly Gly His Glu Ala	
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Phe		

<210> 6293

<211> 750

<212> DNA

<213> Homo sapiens

<400> 6293

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<210> 6294
<211> 250
<212> PRT
<213> Homo sapiens

<400> 6294
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35 40 45
Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
50 55 60
Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
65 70 75 80
Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Cys Gln Ile Leu Lys
85 90 95
Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser
100 105 110
Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
115 120 125
Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
130 135 140
Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
145 150 155 160
Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
165 170 175
Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
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Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
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<210> 6295
<211> 2091
<212> DNA
<213> Homo sapiens

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1380 tggcatcctc gcagcaggga cgtggccag ctggggacg tggttcacgg cgtggaaagc
1440 ctagtggagc ttctggctg gacagaagag atgcgggacc ttgtgcagcg ggaaactgg
1500 aagcttgatg gaccagacaa ataggatgat ggctgcccc acacaataaa tggtaacata
1560 ggagacatcc acatccaaat tctgacaaga cctcatgcct gaagacagct tggcaggtg
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1680 catgagctgc agtgaactggt agggctgtgt ttacagtcag ggccaccccg tcacatatac
1740 aaaggagctg cctgcctgtt tgctgtgtt aactcttcac tctgctgaag ctcctaattgg
1800 aaaaagcttt cttctgactg tgaccctctt gaactgaatc agaccaactg gaatcccaga
1860

ccgagtcgc tttctgtgcc tagttgaacg gcaagctcg catctgttgg ttacaagatc
 1920
 cagacttggg ccgagcggtc cccagccctc ttcatgttcc gaagtgtagt cttgaggccc
 1980
 tggtgccgca cttctagcat gttggcttcc ttttagtgggg ctattttaa tgagagaaaa
 2040
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 2091

<210> 6296
 <211> 399
 <212> PRT
 <213> Homo sapiens

<400> 6296
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 20 25 30
 Ala Cys Gly Cys Arg Leu Val Leu Gly Gly Arg Asp Asp Val Ser Ala
 35 40 45
 Gly Leu Arg Gly Ser His Gly Ala Arg Gly Glu Pro Leu Asp Pro Ala
 50 55 60
 Arg Pro Leu Gln Arg Pro Pro Arg Pro Glu Val Pro Arg Ala Phe Arg
 65 70 75 80
 Arg Gln Pro Arg Ala Ala Ala Pro Ser Phe Phe Ser Ser Ile Lys
 85 90 95
 Gly Gly Arg Arg Ser Ile Ser Phe Ser Val Gly Ala Ser Ser Val Val
 100 105 110
 Gly Ser Gly Gly Ser Ser Asp Lys Gly Lys Leu Ser Leu Gln Asp Val
 115 120 125
 Ala Glu Leu Ile Arg Ala Arg Ala Cys Gln Arg Val Val Val Met Val
 130 135 140
 Gly Ala Gly Ile Ser Thr Pro Ser Gly Ile Pro Asp Phe Arg Ser Pro
 145 150 155 160
 Gly Ser Gly Leu Tyr Ser Asn Leu Gln Gln Tyr Asp Leu Pro Tyr Pro
 165 170 175
 Glu Ala Ile Phe Glu Leu Pro Phe Phe His Asn Pro Lys Pro Phe
 180 185 190
 Phe Thr Leu Ala Lys Glu Leu Tyr Pro Gly Asn Tyr Lys Pro Asn Val
 195 200 205
 Thr His Tyr Phe Leu Arg Leu Leu His Asp Lys Gly Leu Leu Leu Arg
 210 215 220
 Leu Tyr Thr Gln Asn Ile Asp Gly Leu Glu Arg Val Ser Gly Ile Pro
 225 230 235 240
 Ala Ser Lys Leu Val Glu Ala His Gly Thr Phe Ala Ser Ala Thr Cys
 245 250 255
 Thr Val Cys Gln Arg Pro Phe Pro Gly Glu Asp Ile Arg Ala Asp Val
 260 265 270
 Met Ala Asp Arg Val Pro Arg Cys Pro Val Cys Thr Gly Val Val Lys
 275 280 285
 Pro Asp Ile Val Phe Phe Gly Glu Pro Leu Pro Gln Arg Phe Leu Leu
 290 295 300
 His Val Val Asp Phe Pro Met Ala Asp Leu Leu Ile Leu Gly Thr

305	310	315	320
Ser Leu Glu Val Glu Pro Phe Ala Ser	Leu Thr Glu Ala Val Arg Ser		
325	330	335	
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp	Leu Val Gly Pro Leu Ala		
340	345	350	
Trp His Pro Arg Ser Arg Asp Val Ala Gln	Leu Gly Asp Val Val His		
355	360	365	
Gly Val Glu Ser Leu Val Glu Leu Leu Gly	Trp Thr Glu Glu Met Arg		
370	375	380	
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp	Gly Pro Asp Lys		
385	390	395	

<210> 6297

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6297

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 120
 ttccggaaagcc cgttcggcct ggaggagccg cagtgggtcc cggacaagga gtgtcggaga
 180
 tgtatgcagt gtgacgccaa gtttacttt ctcaccagaa agcaccactg tcgcccgtgc
 240
 gggaaagtgtc tctgcgacag gtgctgcagc cagaaggtgc cgctgcggcg catgtgttt
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 gtggaccccg tgccggcgttg cgccggagtgc gccctggtgt ccctcaagga ggccggagtcc
 360
 tacgacaagc agctcaaagt gtcctgagc ggttaaggacg ggtgtcctgc acagtcctgc
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 472

<210> 6298

<211> 146

<212> PRT

<213> Homo sapiens

<400> 6298

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20	25	30	
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys	Glu Cys Arg		
35	40	45	
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr	Arg Lys His		
50	55	60	
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys	Cys Ser Gln		
65	70	75	80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg	Gln Cys		
85	90	95	
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr	Asp Lys		

100 105 110
Gln Leu Lys Val Leu Leu Ser Gly Lys Asp Gly Cys Pro Ala Gln Ser
115 120 125
Cys Ala Leu Arg Gln Pro Ala Pro Arg Val Cys Gly Asp Ala Val Gly
130 135 140
Cys Ala
145

<210> 6299
<211> 1466
<212> DNA
<213> Homo sapiens

<400> 6299
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120
ggcggccagc ccgcccattg gcccaggag agcctggttc tgtaccactg gacccagtcc
180
ttcagctcgc agaaggtgcg gctggtgatc gccgagaagg gcctggtgtg cgaggagcgg
240
gacgtgagcc tgccacagag cgagcacaag gagccctggt tcatgcggct caacctgggc
300
gaggaggtgc ccgtcatcat ccaccgcgac aacatcatca gtgactatga ccagatcatt
360
gactatgtgg agcgcacctt cacaggagag cacgtggtgg ccctgatgcc cgaggtgggc
420
480
gcctacacgc atggctgcat cctgcattttt gagtcacca ccgactccat gatccccaaag
540
tacgccacgg ccgagatccg cagacattt gccaatgcca ccacggacct catgaaactg
600
660
gaccatgaag aggagccca gctctccgag ccctaccttt ctaaacaaaa gaagctcatg
720
gccaagatct tggagcatga tgatgtgagc tacctgaaga agatcctcg ggaactggcc
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840
aaatgcgagc tgtggctctg tggctgtgcc ttccacccctcg ctgatgtccct cctgggagcc
900
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960
cccaacctgc agtccttctt tgagagggtc cagagacgct ttgccttccg gaaagtccctg
1020
ggtgacatcc acaccacccct gctgtcggcc gtcattccca atgctttccg gctggtcaag
1080
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1140
tactttgcct actggtaccc caagaaaaaa tacatctagg gccaggcctg gggcttggtg
1200
tctgactgtc ggtgtctctg tgctgtgtga ttcccccgtga gctctcagta actcaactgtc

tcatgaacac ttggacagcc ctccccgccc ttctttctga gtaataatac cgtcagtgtg
 1260
 aaaacattcc gtatgtttaga agtagacgtt gcaaattgttg tgactcaagg ccacggctct
 1320
 gctaaaagag agagaaggaa cgagagagag agagaaaaaa caaaaaacca gaaaaccacg
 1380
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 1440
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 1466

<210> 6300
 <211> 372
 <212> PRT
 <213> Homo sapiens

<400> 6300
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 Leu Gln Leu Val Ala His Leu Arg Ala Gly Glu Arg Cys Gly Gln Ala
 20 25 30
 Ser Gly Gly Pro Arg Arg Ser Arg Gly Gly Gln Pro Ala His Trp Pro
 35 40 45
 Arg Glu Ser Leu Val Leu Tyr His Trp Thr Gln Ser Phe Ser Ser Gln
 50 55 60
 Lys Val Arg Leu Val Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg
 65 70 75 80
 Asp Val Ser Leu Pro Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg
 85 90 95
 Leu Asn Leu Gly Glu Val Pro Val Ile Ile His Arg Asp Asn Ile
 100 105 110
 Ile Ser Asp Tyr Asp Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr
 115 120 125
 Gly Glu His Val Val Ala Leu Met Pro Glu Val Gly Ser Leu Gln His
 130 135 140
 Ala Arg Val Leu Gln Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp
 145 150 155 160
 Ala Tyr Thr His Gly Cys Ile Leu His Pro Glu Leu Thr Thr Asp Ser
 165 170 175
 Met Ile Pro Lys Tyr Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn
 180 185 190
 Ala Thr Thr Asp Leu Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu
 195 200 205
 Ser Glu Pro Tyr Leu Ser Lys Gln Lys Lys Leu Met Ala Lys Ile Leu
 210 215 220
 Glu His Asp Asp Val Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala
 225 230 235 240
 Met Val Leu Asp Gln Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu
 245 250 255
 Asn Glu Gly Gln Lys Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr
 260 265 270
 Leu Ala Asp Val Leu Leu Gly Ala Thr Leu His Arg Leu Lys Phe Leu
 275 280 285
 Gly Leu Ser Lys Lys Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln

290	295	300
Ser Phe Phe Glu Arg Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu		
305	310	315
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe		320
325	330	335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu		
340	345	350
Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys		
355	360	365
Lys Lys Tyr Ile		
370		

<210> 6301
<211> 911
<212> DNA
<213> Homo sapiens

<400> 6301
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120
ccgaagctct cgctgactct gtccagctca gtgtctcgag ggaatgtgtc cactccccca
180
cgccacagca gtggaagcct tactcccccc gtgacccac ccatcacccc ctcccttca
240
ttcccgagca gcactccgac aggcagcgag tatgacgagg aggaggtgga ctatgaggag
300
tcggacagcg atgagtcctg gaccacagag agtgccatca gctccgaagc catcctcagc
360
tccatgtgca tgaatggagg ggaagagaag cctttgcct gcccagttcc tggatgtaaa
420
aagagataca agaatgtcaa tggcataaaag tatcacgcta agaatggtca cagaacacag
480
attcgtgtcc gcaaaccatt caagtgtcgc tgtggaaaga gttacaagac agctcagggc
540
ctgcggcacc acacaatcaa tttccatccc ccgggtgtcgg ctgagattat caggaagatg
600
cagcaataac atgctggtca taactgtgcc aagaaatcct caccagcagt tgctgatttt
660
aaaaacagcc acctttttc agggaaagca tttagcaacc ctttaaagaa aaagaattaa
720
atgcatttgcatt taaatttttt ctgtatgtt ggaatgtatgt atctttgttag agttaatgtat
780
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840
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911

<210> 6302
<211> 202
<212> PRT

<213> Homo sapiens

<400> 6302

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						20			25				30		
Glu	Ser	Leu	Lys	Lys	Lys	Ile	Gln	Pro	Lys	Leu	Ser	Leu	Thr	Leu	Ser
						35			40			45			
Ser	Ser	Val	Ser	Arg	Gly	Asn	Val	Ser	Thr	Pro	Pro	Arg	His	Ser	Ser
						50			55			60			
Gly	Ser	Leu	Thr	Pro	Pro	Val	Thr	Pro	Pro	Ile	Thr	Pro	Ser	Ser	Ser
						65			70			75			80
Phe	Arg	Ser	Ser	Thr	Pro	Thr	Gly	Ser	Glu	Tyr	Asp	Glu	Glu	Val	
						85			90			95			
Asp	Tyr	Glu	Glu	Ser	Asp	Ser	Asp	Glu	Ser	Trp	Thr	Thr	Glu	Ser	Ala
						100			105			110			
Ile	Ser	Ser	Glu	Ala	Ile	Leu	Ser	Ser	Met	Cys	Met	Asn	Gly	Gly	Glu
						115			120			125			
Glu	Lys	Pro	Phe	Ala	Cys	Pro	Val	Pro	Gly	Cys	Lys	Lys	Arg	Tyr	Lys
						130			135			140			
Asn	Val	Asn	Gly	Ile	Lys	Tyr	His	Ala	Lys	Asn	Gly	His	Arg	Thr	Gln
						145			150			155			160
Ile	Arg	Val	Arg	Lys	Pro	Phe	Lys	Cys	Arg	Cys	Gly	Lys	Ser	Tyr	Lys
						165			170			175			
Thr	Ala	Gln	Gly	Leu	Arg	His	His	Thr	Ile	Asn	Phe	His	Pro	Pro	Val
						180			185			190			
Ser	Ala	Glu	Ile	Ile	Arg	Lys	Met	Gln	Gln						
						195			200						

<210> 6303

<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

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120					
gctgaaacaa	tgagaatagt	gctggaacgc	tgctacaatg	atttgcgtct	tctcagtgtc
180					
tccagtaaaa	ccctgaaagc	tgaaggatTT	tttagaagta	acaagggttt	tgttggaaagc
240					
tccgagactt	tggattacca	gatggccttt	gcagactctc	atttatggaa	actcctggat
300					
cggcatgcaa	atacaatcag	attattgtt	ttgctacctg	aacaatcccc	agtatcttat
360					
tccaaaagga	cagcatacca	gaaagctgga	ggcgattctg	gtaatgtgga	tgatgactgt
420					
gaaagagtca	aaggacctgt	aggaaggcta	aagtctgtgg	aagctattct	agaagaaaagc
480					
actaaaaaac	tcaaaagctt	gtcactgcag	caacagcagg	atggagataa	tggggacagc
540					

agcaaaagta ctgagacaag tgactttgaa aacatcgaaat cacctctcaa tgagagggac
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<210> 6304
<211> 181
<212> PRT
<213> *Homo sapiens*

<400> 6304
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 20 25 30
 Val Phe Val Glu Ser Ser Glu Thr Leu Asp Tyr Gln Met Ala Phe Ala
 35 40 45
 Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg
 50 55 60
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
 65 70 75 80
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp
 85 90 95
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
 100 105 110
 Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
 115 120 125
 Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
 130 135 140
 Asp Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala
 145 150 155 160
 Ser Val Asp Asn Arg Glu Leu Glu Gln His Ile Gln Thr Ser Asp Pro
 165 170 175
 Glu Lys Phe Ser Val
 180

<210> 6305
<211> 3853
<212> DNA
<213> *Homo sapiens*

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120
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gtgtccc~~gt~~tg ttacctggga cagcac~~tt~~tc tgccgc~~gt~~ca accccaagtt cctggcg~~gt~~g
240
attgtggagg ccag~~t~~ggagg ggg~~t~~gc~~tt~~tt ctgg~~t~~gc~~tc~~ ccctaagcaa gacggggcc~~gc~~
300

attgacaagg cctaccctac agtatgtggg cacacaggac cagtgcgttga catcgactgg
360
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420
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480
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600
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720
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1320
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1920

10/04/3, 649
B2

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2220
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2880
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3060
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 3853

<210> 6306
 <211> 474
 <212> PRT
 <213> Homo sapiens

<400> 6306
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 35 40 45
 Ile Val Glu Ala Ser Gly Gly Ala Phe Leu Val Leu Pro Leu Ser
 50 55 60
 Lys Thr Gly Arg Ile Asp Lys Ala Tyr Pro Thr Val Cys Gly His Thr
 65 70 75 80
 Gly Pro Val Leu Asp Ile Asp Trp Cys Pro His Asn Asp Gln Val Ile
 85 90 95
 Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile Pro Glu
 100 105 110
 Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Leu Glu Gly
 115 120 125
 His Thr Lys Arg Val Gly Ile Ile Ala Trp His Pro Thr Ala Arg Asn
 130 135 140
 Val Leu Leu Ser Ala Gly Cys Asp Asn Val Val Leu Ile Trp Asn Val
 145 150 155 160
 Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro Asp Leu
 165 170 175
 Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys Ser Ala
 180 185 190
 Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu
 195 200 205
 Val Ala Glu Arg Glu Lys Ala His Glu Gly Ala Arg Pro Met Arg Ala
 210 215 220
 Ile Phe Leu Ala Asp Gly Lys Val Phe Thr Thr Gly Phe Ser Arg Met
 225 230 235 240
 Ser Glu Arg Gln Leu Ala Leu Trp Asn Pro Lys Asn Met Gln Glu Pro
 245 250 255
 Ile Ala Leu His Glu Met Asp Thr Ser Asn Gly Val Leu Leu Pro Phe
 260 265 270
 Tyr Asp Pro Asp Thr Ser Ile Ile Tyr Leu Cys Gly Lys Gly Asp Ser

275	280	285
Ser Ile Arg Tyr Phe Glu Ile Thr Asp Glu Ser Pro	Tyr Val His Tyr	
290	295	300
Leu Asn Thr Phe Ser Ser Lys Glu Pro Gln Arg Gly	Met Gly Tyr Met	
305	310	315
Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile	Ala Arg Phe Phe	
325	330	335
Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met	Thr Val Pro Arg	
340	345	350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp	Thr Ala Gly Pro	
355	360	365
Glu Ala Ala Leu Glu Ala Glu Glu Trp Phe Glu Gly	Lys Asn Ala Asp	
370	375	380
Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro	Gly Lys Asn Arg	
385	390	395
Asp Leu Lys Val Val Lys Lys Asn Ile Leu Asp Ser	Lys Pro Thr Ala	
405	410	415
Asn Lys Lys Cys Asp Leu Ile Ser Ile Pro Lys Lys	Thr Thr Asp Thr	
420	425	430
Ala Ser Val Gln Asn Glu Ala Lys Leu Asp Glu Ile	Leu Lys Glu Ile	
435	440	445
Lys Ser Ile Lys Asp Thr Ile Cys Asn Gln Asp	Glu Arg Ile Ser Lys	
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465	470	

<210> 6307

<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307

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300
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360
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420
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480
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600
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660

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780
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840
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1020
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1080
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1140
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1200
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1260
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1680
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1860
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1980
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2119

<210> 6308
<211> 483
<212> PRT

<213> Homo sapiens

<400> 6308

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Asn	Ile	Ile	Ala	Ala	Lys	Ala	Ala	Glu	Val	Arg	Ala	Asn	Lys	Val	Asn
					20					25				30	
Trp	Gln	Ser	Tyr	Leu	Gln	Gly	Gln	Met	Ile	Ser	Ala	Glu	Asp	Cys	Glu
					35					40				45	
Phe	Ile	Gln	Arg	Phe	Glu	Met	Lys	Arg	Ser	Pro	Glu	Glu	Lys	Gln	Glu
					50					55				60	
Met	Leu	Gln	Thr	Glu	Gly	Ser	Gln	Cys	Ala	Lys	Thr	Phe	Ile	Asn	Leu
65					70					75				80	
Met	Thr	His	Ile	Cys	Lys	Glu	Gln	Thr	Val	Gln	Tyr	Ile	Leu	Thr	Met
					85					90				95	
Val	Asp	Asp	Met	Leu	Gln	Glu	Asn	His	Gln	Arg	Val	Ser	Ile	Phe	Phe
					100					105				110	
Asp	Tyr	Ala	Arg	Cys	Ser	Lys	Asn	Thr	Ala	Trp	Pro	Tyr	Phe	Leu	Pro
					115					120				125	
Met	Leu	Asn	Arg	Gln	Asp	Pro	Phe	Thr	Val	His	Met	Ala	Ala	Arg	Ile
					130					135				140	
Ile	Ala	Lys	Leu	Ala	Ala	Trp	Gly	Lys	Glu	Leu	Met	Glu	Gly	Ser	Asp
145					150					155				160	
Leu	Asn	Tyr	Tyr	Phe	Asn	Trp	Ile	Lys	Thr	Gln	Leu	Ser	Ser	Gln	Lys
					165					170				175	
Leu	Arg	Gly	Ser	Gly	Val	Ala	Val	Glu	Thr	Gly	Thr	Val	Ser	Ser	Ser
					180					185				190	
Asp	Ser	Ser	Gln	Tyr	Val	Gln	Cys	Val	Ala	Gly	Cys	Leu	Gln	Leu	Met
					195					200				205	
Leu	Arg	Val	Asn	Glu	Tyr	Arg	Phe	Ala	Trp	Val	Glu	Ala	Asp	Gly	Val
					210					215				220	
Asn	Cys	Ile	Met	Gly	Val	Leu	Ser	Asn	Lys	Cys	Gly	Phe	Gln	Leu	Gln
225					230					235				240	
Tyr	Gln	Met	Ile	Phe	Ser	Ile	Trp	Leu	Leu	Ala	Phe	Ser	Pro	Gln	Met
					245					250				255	
Cys	Glu	His	Leu	Arg	Arg	Tyr	Asn	Ile	Ile	Pro	Val	Leu	Ser	Asp	Ile
					260					265				270	
Leu	Gln	Glu	Ser	Val	Lys	Glu	Lys	Val	Thr	Arg	Ile	Ile	Leu	Ala	Ala
					275					280				285	
Phe	Arg	Asn	Phe	Leu	Glu	Lys	Ser	Thr	Glu	Arg	Glu	Thr	Arg	Gln	Glu
					290					295				300	
Tyr	Ala	Leu	Ala	Met	Ile	Gln	Cys	Lys	Val	Leu	Lys	Gln	Leu	Glu	Asn
305					310					315				320	
Leu	Glu	Gln	Gln	Lys	Tyr	Asp	Asp	Glu	Asp	Ile	Ser	Glu	Asp	Ile	Lys
					325					330				335	
Phe	Leu	Leu	Glu	Leu	Gly	Glu	Ser	Val	Gln	Asp	Leu	Ser	Ser	Phe	
					340					345				350	
Asp	Glu	Tyr	Ser	Ser	Glu	Leu	Lys	Ser	Gly	Arg	Leu	Glu	Trp	Ser	Pro
					355					360				365	
Val	His	Lys	Ser	Glu	Lys	Phe	Trp	Arg	Glu	Asn	Ala	Val	Arg	Leu	Asn
					370					375				380	
Glu	Lys	Asn	Tyr	Glu	Leu	Leu	Lys	Ile	Leu	Thr	Lys	Leu	Leu	Glu	Val
385					390					395				400	
Ser	Asp	Asp	Pro	Gln	Val	Leu	Ala	Val	Ala	Ala	His	Asp	Val	Gly	Glu

405	410	415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly		
420	425	430
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val		
435	440	445
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp		
450	455	460
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala		
465	470	475
Ala Arg Ser		480

<210> 6309
<211> 564
<212> DNA
<213> Homo sapiens

<400> 6309
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120
ccaggcgccct cccacgggtt tcccccgcaag ccgcgcacacc accaacagtc gccgcaaccg
180
ccgcgtggaa cagacgaccc gggctctaaa gaggcggcgc gggcgggacg cagccccctgg
240
tccatctcgg gcgcgcctg atgcactcct actgcgcctg ggtccctcccg gcctgtctca
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420
ccgcagcttc tcccgagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
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540
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564

<210> 6310
<211> 83
<212> PRT
<213> Homo sapiens

<400> 6310
Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
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Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35 40 45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
50 55 60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro

65 Arg Phe Glu

70

75

80

<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 6311
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120
tttaaagatc ttatggggct caaatactaa cttcataaaat ggcctttga ataacagcag
180
caaataatct ctcagctgat atttcaattt actaaggaag cacaaattaa aacattcctg
240
ctacacagtc atgggctggc acatgtctgg ttggatgaat acaaggagca gtattttcc
300
ttaagacctg acctgaagac gaaaagctat ggcaatatac gtgagcgtgt ggaactgaga
360
aagaagttgg gctgtaaatc atttaaatgg tatttggata atgtataaccc agagatgcag
420
atatctgggt cccacgccaa accccaacaa cccatTTTtca tcaatagagg gccaaaacga
480
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600
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660
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720
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780
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900
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960
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1080
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1140
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1260
atttatgcct ctttttaatc cccttaatg atgcagtggc ttttatctga tcagggactt
1320

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gtcatgatt ccttccttag acttcatagg agatagtgc taaaaaaaaaaa aaaaacttct  
1380  
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1440  
aacttcagaa ggcatcattt ataagacagt atggcagttt attataaaat tattttgatg  
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1548
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<210> 6312
<211> 234
<212> PRT
<213> *Homo sapiens*

<400> 6312
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 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys
 35 40 45
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys
 50 55 60
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu
 65 70 75 80
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val
 85 90 95
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr
 100 105 110
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln
 115 120 125
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn
 130 135 140
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu
 145 150 155 160
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu
 165 170 175
 Met Lys Cys His Gly Ser Gly Ser Gln Gln Trp Thr Phe Gly Lys
 180 185 190
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val
 195 200 205
 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly
 210 215 220
 Ser Ser Ser Gln Gln Trp His Leu Glu Gly
 225 230

<210> 6313
<211> 725
<212> DNA
<213> *Homo sapiens*

<400> 6313
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 240
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 360
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 720
 ggagc
 725

<210> 6314
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 6314
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 Arg Ala Glu Arg Glu Ile Ser Lys Met Lys Pro Ser Val Ala Pro Arg
 20 25 30
 His Pro Ser Thr Asn Ser Leu Leu Arg Glu Gln Ile Ser Leu Tyr Pro
 35 40 45
 Glu Val Lys Gly Glu Ile Ala Arg Lys Asp Glu Lys Leu Leu Ser Phe
 50 55 60
 Leu Lys Asp Val Tyr Val Asp Ser Lys Asp Pro Val Ser Ser Leu Gln
 65 70 75 80
 Val Lys Ala Ala Glu Thr Cys Gln Glu Pro Lys Glu Phe Arg Leu Pro
 85 90 95
 Lys Asp His His Phe Asp Met Ile Asn Ile Lys Ser Ile Pro Lys Gly
 100 105 110
 Lys Ile Ser Ile Val Glu Ala Leu Thr Leu Leu Asn Asn His Lys Leu
 115 120 125
 Phe Pro Glu Thr Trp Thr Ala Glu Lys Ile Met Gln Glu Tyr Gln Leu
 130 135 140
 Glu Gln Lys Asp Val Asn Ser Leu Leu Lys Tyr Phe Val Thr Phe Glu
 145 150 155 160
 Val Glu Ile Phe Pro Pro Glu Asp Lys Lys Ala Ile Arg Ser Lys
 165 170 175

<210> 6315
<211> 378
<212> DNA
<213> Homo sapiens

<400> 6315
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120
tatgtaaaat ataaatatgc aatggatgaa gctgatgaaa aaggatggtt tccattgcat
180
gaagctgttg ttcaacccat tcaacaaata cttgagatttgc atccataag
240
acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct
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360
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378

<210> 6316
<211> 126
<212> PRT
<213> Homo sapiens

<400> 6316
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Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln
20 25 30
Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met
35 40 45
Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
50 55 60
Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
65 70 75 80
Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
85 90 95
Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
100 105 110
Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
115 120 125

<210> 6317
<211> 1201
<212> DNA
<213> Homo sapiens

<400> 6317
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ttcttaagat gtcttgccga agtagcaaga gcggagggtg actgtgtgag caggagcgg
120

agggcgccag ctccctgcggg ggagggttcct actgcgcgcc ccaccctgtg caagaatgtc
 180
 aggctttagg gcagctgcca taggccccag gggcatcagg actctgcctc tgaaccagag
 240
 ctgcttccc gactaacttc aatctggaga gatggtaagt tatctaaccg gctttctt
 300
 tggcgagact gctcttcctc cttaatcaga gccccccatg cccttgca gtcagagtcg
 360
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 420
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 480
 aggccttac tattcctgcct gggAACACCT agcctactat gcacatcaga agagggctc
 540
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 600
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 780
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 960
 tactctacca ccactctgtc atctgcattcc atgtcctggc tttttttttt ctcttcctt
 1020
 tccttccttcc ctccttccttcc ctccctttca atgggtttccctt cgggaacatt cactagccca
 1080
 gaatgtcgat gtttatacga cgtcaagcca acgtcatccc caatcagggc tcttttttgc
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 atcacgtccc gctgaatacgt acgggaatga tatcttcgtt tccatgaatt gctaagaatt
 1200
 C
 1201

<210> 6318
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 6318
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 35 40 45
 Ser Met Gly Ser Ser
 50 55 60
 Gly Thr Phe Thr Ser Pro Glu Cys Arg Cys Leu Tyr Asp Val Lys Pro

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<210> 6319
<211> 345
<212> DNA
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195

What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n , wherein n is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprise the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least contiguous nucleotides selected from the group consisting of SEQ ID NO:2 n -1, wherein n is a integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.

9 A host cell comprising the isolated nucleic acid molecule of claim 1.

10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.

11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2 n , wherein n is any integer 1-3161.

12. An antibody that selectively binds to the polypeptide of claim 10.

13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:

- a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;
- and a pharmaceutically acceptable carrier.

14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.

15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.

16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the corresponding sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

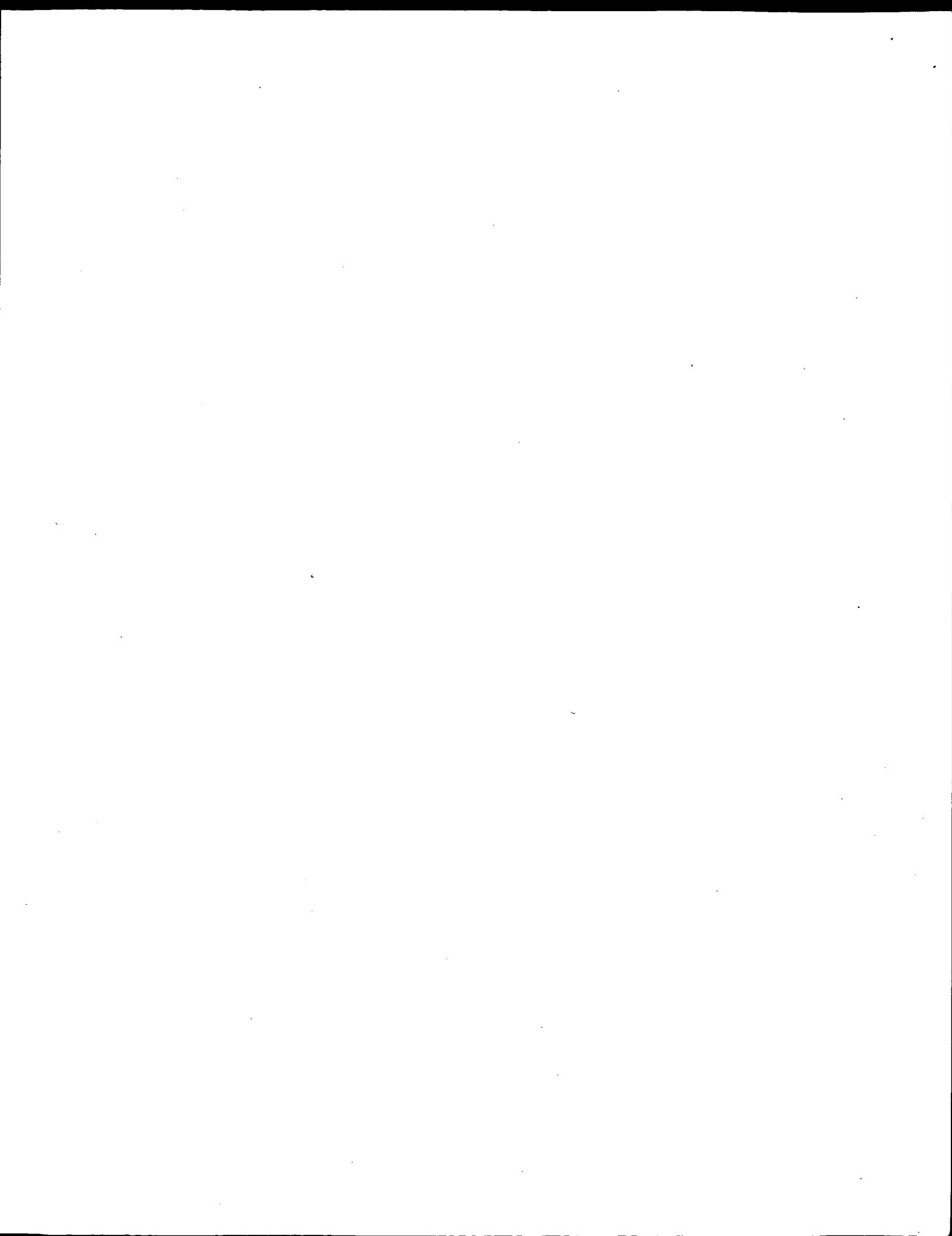
28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.



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(75) Inventors/Applicants (*for US only*): SHIMKETS,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 00/58473 A3

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/08621

A. CLASSIFICATION OF SUBJECT MATTER					
IPC 7	C12N15/12	C07K14/47	C07K16/18	G01N33/566	C12Q1/68
	C12N15/11	C12N15/62	A01K67/027	A61K38/00	

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence --- LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence --- -/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- "&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

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Authorized officer

Hix, R

INTERNATIONAL SEARCH REPORT

Internet Application No

PCT/US 00/08621

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i> ." SCIENCE, vol. 287, 24 March 2000 (2000-03-24), pages 2185-2195, XP002144875 the whole document -----	6

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

Inte International application No.
PCT/US 00/08621

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

